ICRISAT at 30

The Historic Journey to the Semi-Arid Tropics

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Foreword

It is with humility, affection, and an immense sense of pride that I write this foreword to *ICRISAT at 30: The Historic Journey to the Semi-Arid Tropics.* Humility because I am a relative newcomer to this great institution, affection because like each member of the ICRISAT family I am part of the story, and pride because on the occasion of the institute's 30th anniversary, I am privileged to be its Director General.

Last year, on our 29th anniversary, we celebrated the contributions of ICRISAT's three founding fathers - Fred Bentley, Ralph Cummings and MS Swaminathan - the trio we described as the 'ICRISAT Tripod'. Staff were already making plans for our 30th birthday when inspiration sprang from none other than Professor Swaminathan himself, who, in his Annual Day address, urged us to undertake the publication of a history of the institute. How could we refuse?

Thomas Carlyle said that the history of the world is but the biography of great men. Well, ICRISAT has certainly had its share of great men - not to mention great women! But this history book is not just about the great ones who have shared themselves with us in the journey to the semi-arid tropics. It is also the story of ordinary folk whose lives are interwoven in the fabric that holds us all together. The book you hold in your hands is therefore less a chronicle of the wonderful research achievements of the institute than a celebration of the people whose hearts and minds and hands and toil brought us to where we are today.

This book is dedicated to all those who have built and continue to build ICRISAT - an institute committed to improving the livelihoods of the poor through a grey to green revolution and science with a human face. May our next 30 years be as productive as the three decades behind us!

William D Dar
Director General

Preface

An institution is built by people and grows with people. People make it a success or a failure. All institutions pass through ups and downs, going through bountiful as well as difficult times. ICRISAT is no exception.

History tells us how an institution is born - how it passes through infancy, adolescence and maturity. Those associated with each of these stages of life remember the incidents that typified them, and vividly recount the story to succeeding generations.

This is the story of ICRISAT. When the ASK Group agreed to compile the recollections of the players in this rich saga, we had no idea of the daunting task that lay ahead. Meetings called to chalk out a workplan invariably turned into reminiscences of old times as incidents serious or funny came tumbling out of our heads. And so it went whenever we asked anyone to share their memories with us.

The recollections of the founding fathers of the institute - MS Swaminathan, Fred Bentley, Les Swindale, JS Kanwar and others - gave us a framework. But we found that the story we were assembling was like a jigsaw puzzle with missing pieces, and we needed someone to help us fill the gaps. We found him. The great Balu, as he is fondly known to all of us, knew where the lost archives were kept, and in the end the puzzle was completed.

Most history books are full of dates and this one is no exception, but we've tried to keep them to a minimum. We wanted this book to be about people - the people who built this great institute, the people who nurtured it, and the people who made it a center of excellence. Again and again, we found that the people who worked here cherish the memories of their time with ICRISAT This then is the proof of the institute's greatness - that it cared for its people, and that its people were proud to work here.

This history would not have been possible without the enthusiastic response from Fred Bentley, MS Swaminathan, LD Swindale, Jim Ryan, JS Kanwar, YL Nene, LR House, JW Estes, DJ Andrews, CLL Gowda, SN Nigam, K Sampath, AJ Ramarao , GV Ranga Rao, S Raghavan, Lydia Flynn, Eric McGaw, RS Paroda, Eric Roberts, Georgina Fredricks, DK Mehta, Anwari Aleem, NSL Kumar, DM Pawar, SS Lateef, Shravan Kumar, Sarwat Hussain, KK Sood, M Prabhakar Reddy, L Vidyasagar and many more former and present staff. We are indeed grateful to them. S Ratnam and T David were always ready to help dig up the archival material with smiling faces - their help was of incalculable value.

Our sincere thanks to Willie Dar and Eric McGaw for offering ASK this challenge and for their unflagging support.

This book is both for the people and by the people who have been part of ICRISAT's history. We hope you will all enjoy reading this book as much as we did putting it together. Then and only then will our effort be rewarded!

ASK Resource Group
Hyderabad, October 2002

A century of combined experience. L to R: B Diwakar, DS Bisht. PM Menon, SK Dasgupta.

In the beginning...

MS Swaminathan.

The following chronology of events was narrated by Professor MS Swaminathan, World Food Prize Laureate, architect of the Green Revolution, former Director General of the Indian Council of Agricultural Research (ICAR) as well as the International Rice Research Institute (IRRI), eminent agricultural scientist - but always and forever, heart and soul, a part of the ICRISAT family.

Sometime in 1966 when I was in Hyderabad reviewing our work on sorghum as Director of the Indian Agricultural Research Institute (IARI), Dr Ralph Cummings and Dr Lee House, who were then Joint Coordinators of the Sorghum Programme, took me to the plots managed by The Rockefeller Foundation on the farm of the Andhra Pradesh Agricultural University (APAU) at Rajendranagar.

At that time, Dr House mentioned the need for an international sorghum research institute on the model of IRRI in the Philippines. His idea was that India would be an ideal host for such an institute. I supported the idea and suggested that the new institute could also deal with pearl millet and various other millet crops, in addition to sorghum.

During the period 1969-70, steps had been initiated for organizing the Consultative Group on International Agricultural Research (CGIAR). A final decision to launch the CGIAR was taken at Bellagio, Italy, where FAO, UNDP and the World Bank agreed to be the three sponsors. Early in 1971, a Technical Advisory Committee (TAC) to the CGIAR was set up by the sponsors, and I received a letter from Dr AH Boerma, the then Director General of FAO, inviting me to serve as a member. Sir John Crawford of Australia was appointed Chair and I was invited to serve as Vice Chair for a period of 6 years.

A consultation was held under the auspices of The Rockefeller Foundation at IRRI in 1970 (or early 1971) to examine the scope for establishing an international

The Government of India asked me to help the team select ICRISAT site. I was then Deputy Director General of ICAR. After seeing three other locations, the team visited the Patancheru site. It had been inundated with torrential rain the previous day and the team could not even approach the site, so I showed it to them from the rooftop of a BHEL building. Their first reaction was 'Do you call this the SAT? It looks like an Amazonian swamp!' I replied, 'That's exactly what I want you to see! One fourth of the year's rain has come down in a single shower, but there could be drought tor the next month.' Harnessing this climate is the name of the game ICRISAT had to pursue.

JS Kanwar, Deputy Director General, 1973-1988.

center for sorghum and millets. The Foundation had also organised a separate consultation for developing an international center for grain legumes.

At the first meeting of TAC in Rome in June 1971, the reports from both consultations were presented. I suggested that instead of organizing two separate institutions, there could be a single institute for semi-arid crops to conduct research on grain legumes as well as sorghum and millets. Some of the other existing institutions like IITA and CIAT could deal with the other legumes.

There was considerable discussion about the nature of such an institution. Some wanted it to be like IRRI - a commodity-centered institution. However, I mentioned that because semi-arid crops were wholly dependent on rainfall, techniques such as water harvesting and resource management would hold the key to enhancing and stabilizing yields. I therefore pleaded for a farming systems approach rather than a commodity-centered approach. This view was accepted and a committee was set up to identify a suitable location for the new institution - either in sub-Saharan Africa or in Asia. Four mandate crops were chosen: sorghum, pearl millet, chickpea and pigeonpea. The three-man committee was chaired by Ralph Cummings, then with the Ford Foundation. The other two members of the committee were Hugh Doggett of the Overseas Development Administration of the UK and L Sauger, Director of the Centre de Recherche Agronomique du Bambey, Senegal.

The Cummings team visited several locations in Africa and India. In India, three locations had been proposed, one at Hyderabad (Patancheru) and two others at Indore and Varanasi. The preparation of detailed site reports was undertaken by a team headed by JS Kanwar, who was then Deputy Director General (Soils) of ICAR. The Cummings team chose Hyderabad for a variety of reasons, including communication facilities and opportunities for education of children of expatriate scientists. They recommended to TAC at its October 1971 meeting that an International Crops Research Institute for the Semi-Arid Tropics, with the convenient and sonorous acronym 'ICRISAT, be established at Hyderabad.

ICRISAT would conduct research on the three streams of work that I had proposed at the TAC meeting: crop improvement, watershed management and socioeconomic research. This recommendation was accepted by TAC and recommended to the CGIAR. In January 1972, the CGIAR accepted the recommendation of TAC and designated the Ford Foundation as the executing agency for the establishment of ICRISAT

Meanwhile, I had become the Director General of ICAR on 14 January 1972. The Ford Foundation nominated Dr Ralph Cummings as Special Officer for getting ICRISAT into existence. Dr Cummings called on me to prepare the constitution of ICRISAT. We worked very hard to develop a document that ensured that the host country would play an important role in the development of the institute and in shaping its programs. Three trustees were proposed from India - the Cabinet Secretary to the Government of India, the Chief Secretary to the Government of Andhra Pradesh and the Director General of ICAR. It was also agreed that the latter would serve as Vice Chair of the Board of Trustees as well as Chair of the Program Committee. Further, it was agreed that the Chief

Signing of the Constitution of ICRISAT. L to R: MS Swaminathan, RH Demuth of the World Bank, DL Umali of FAO. Fred Bentley. Ralph Cummings is standing.

ICRISAT farm in its initial stage.

December 2001: inaugurating the MS Swaminathan Applied Genomics Laboratory. L to R: Jonathan Crouch, Panjab Singh, Willie Dar, Fred Bentley, MS Swaminathan.

Administrative Officer of ICRISAT would be a senior Indian Administrative Service (IAS) Officer seconded to ICRISAT by the Government of India.

Mr Fakhruddin Ali Ahmed was then Union Minister for Agriculture. I got his approval for a Cabinet Paper seeking the provision of land and other facilities for ICRISAT. I also obtained the approval of the Ministries of External Affairs and Finance to give ICRISAT the status of an international center under the UN Immunities and Privileges Act. The only condition was that the Constitution of ICRISAT must be signed by the three co-sponsors of CGIAR: UNDP, FAO and the World Bank. The proposal received Cabinet approval early in February 1972. In retrospect, this is almost a world record in getting an institution established within a period of 9 months from the time the original proposal was considered!

The suggestions that a senior IAS officer serve as Principal Administrative Officer and that the Chief Secretary of Andhra Pradesh serve as a Trustee proved very useful, since this helped in the rehabilitation of the several hundred people who were then living on the land allotted to ICRISAT. The rehabilitation of such families was done in a very smooth and amicable manner. I am mentioning this because a similar situation in Ibadan, Nigeria, where IITA was established, was handled in a manner that resulted in great bitterness and continuing conflict.

In keeping with the promise to the Government of India, ICRISAT's constitution was signed by senior representatives of FAO, UNDP and the World Bank in June 1972 at the first meeting of the Board of Trustees.

I must also chronicle here the events leading up to the appointment of the first Director of ICRISAT. After the formalities of the institute's establishment were completed, I was asked to chair a Search Committee to identify the first Director (the term 'Director General' came into use later). Obviously, Ralph Cummings, who had essentially brought ICRISAT into existence, would have been the ideal choice. However, he had already accepted the position of Director General of IRRI. He and his wife Mary had even shifted their residence to Los Bahos. He was to be the second DG of IRRI after Dr Robert Chandler.

The Search Committee under my chairmanship considered several other candidates. Finally, we decided to invite Fred Bentley, who was then working as temporary head of ICRISAT, to become our first Director. I think it was an evening, sometime in July 1972 in Washington DC, that I conveyed the invitation of the Search Committee to Dr Bentley to agree to become the first DG. He told me that he would be honored to take up this challenging assignment. We were all happy with this positive response. However, early next morning I had a call from Dr Bentley at the Watergate Hotel, where I was staying (the same hotel later to became famous due to the Nixon affair), wanting to meet me urgently. I asked him to come over and when he arrived he told me that the whole night he had not slept because of his feeling that he would not be able to do justice to the post.

I had to respect his judgment since I knew that Dr Bentley was a person of the highest intellectual integrity and moral stature. I did not know what to do. I immediately consulted Dr Frosty Hill, one of the early founders and builders of the CGIAR system, and he told me that he could convince Ralph Cummings to come to ICRISAT, leaving his position in IRRI. I talked to Ralph and Mary about the prospect of returning to India. To my delight, Ralph accepted the offer immediately since his heart was still in India. Mary was equally enthusiastic. I therefore proceeded to get the ICRISAT Board to confirm the appointment Ralph Cummings as the first Director of ICRISAT.

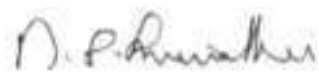
I learned a great deal from this experience. On the one hand, I was deeply impressed by Dr Bentley's humility and high standards of self-assessment. On the other, I was overwhelmed by the commitment of Ralph and Mary Cummings to my country and its poor farming families. To agree to pack up their belongings so soon after settling down in the DG's bungalow at Los Banos and shift back to India all of a sudden was a singularly noble decision.

My subsequent interaction with ICRISAT during the period 1972-80 was in my capacity as Trustee of the Board. While serving on the ICRISAT Board, I set up

Selection of the Director - Fred Bentley couldn't accept, Ralph Cummings couldn't refuse!

a special committee to explore possibilities of extending the work of ICRISAT to farmers. It was the first time that a CG institute established such lab-to-land linkages. Also, I helped to establish the Quarantine Station at ICRISAT and to develop the genebank.

It has been a real pleasure to be associated with the birth and growth of ICRISAT. No other international center came into existence so fast (within 6 months of the report of the Site Selection Committee), and no other institution has been given such extensive land and facilities by a host nation. I must also add that right from the beginning, I was keen to get groundnut added to the mandate of ICRISAT. Finally, I succeeded in getting this done. Association with ICRISAT has been a truly inspiring and satisfying experience.



MS Swaminathan
25 September 2002

A dozen locations were considered by the Cummings-led Feasibility Study Team for establishing ICRISAT - seven in Africa, five in India. The team visited five of the suggested African locations: Bambey, Senegal; Alemaya, Ethiopia; an area east of Nairobi, Kenya; an area north of Kampala, Uganda; and Morogoro, Tanzania. The African locations not visited were Bobo-Dioulasso, Upper Volta (now Burkina Faso); and Samaru, Nigeria. The Indian possibilities were Bangalore, Poona, Indore, Varanasi and Hyderabad. The team visited all but Varanasi, and unanimously selected Hyderabad.

Accepting the land transfer in Kachireddipalli.

Excerpts from a speech by Ralph Cummings on the occasion of ICRISAT's 10th Anniversary, 11 October 1982

The Green Revolution of the 1960s marked a turning point in the hopes and aspirations of the developing world that modern science could indeed stave off hunger and famine for another generation or two. But these developments were of greatest value to those areas and peoples who had access to irrigation. large areas of the tropics and several hundred millions of people therein were dependent on crops and livestock produced ***on*** *soils receiving sparse, seasonal and irregularly spaced rainfall, unsupplemented by irrigation and low in fertility. Theirs was a harsher environment involving much greater production risks. Substantial improvement in the levels and dependability of their food supplies required a somewhat different range of considerations.*

The First Governing Board meeting. Standing (L to R): UK Rao, Rubens Vaz da Costa, T Swaminathan, DW Thome, AR Melville, RW Cummings, MH Mengesha, K Lampe. Sitting: RH Demuth, CF Bentley, MS Swaminathan, DL Umali.

Special attention was needed for the semi-arid tropics, where sorghum and millets, along with a range *of pulses, are the major components of the cropping pattern and the major staple foods. We were indeed fortunate in finding and obtaining this site near Hyderabad, India, which so nearly met all the essential criteria for the center's research headquarters. We were also fortunate in being extended the whole-hearted cooperation of the Government of India and State of Andhra Pradesh in overcoming all obstacles to making the land available.*

Formal negotiations with the Government of India were initiated in late January 1972, and agreement was completed before the end of March. Thus, on 5 July 1972, the land was in hand, and the Governing Board had been constituted and assembled in Hyderabad for its tirst meeting and tor ratilication ot the Charter. By that time the first experimental crops on small tracts of both the red Alfisols and black Vertisols (a rather unique soil feature of the site) had been planted and were emerging.

Bob Pomeroy inspecting the site.

The site in 1972.

Selecting the site

There were good reasons for selecting Hyderabad (Patancheru) as the site for the ICRISAT headquarters. In fact, there were nine of them:

1. It had a typical semi-arid climate.
2. It had two of the major soil types of the SAT: Alfisols and Vertisols.
3. The land was readily available with very supportive cooperation from the Governments of Andhra Pradesh and India.
4. There was a good infrastructure in the city.
5. The city was well connected by air, rail and other transport services.
6. There were good academic institutions with whom to collaborate.
7. There was political stability and the city encouraged a cosmopolitan society.
8. The living conditions were good for the families.
9. Professional and skilled personnel were available.

Naming the institute

The Study Team considered a variety of names for the new institute. Obviously the name should be self-explanatory and descriptive of its program. It should also be reasonably short and provide an acronym easily pronounced. Here are some of names the team suggested:

Upland Crops Research Institute (UCRI)

Crops Research Institute for the Semi-Arid Tropics (CRISAT)

International Research Institute for Crops of the Semi-Arid Tropics (IRICSAT)

International Sorghum, Millets, and Pulses Research Institute (ISOMPRI)

Center for Research on Rain-fed Crops (CRRC)

It is assumed that readers will appreciate that you are not *reading about the history of 'UCRI' or 'ISOMPRI'!*

Narsimha Murthy, the accidental designer of the ICRISAT logo.

ICRISATs logo

It will surprise people to know that the logo of ICRISAT was not designed by a professional artist, but by a security officer! When ICRISAT requested BHEL, our neighbors, to help us organize a security force, their Chief Security Officer, Mr Narsimha Murthy, who was recruited from the Indian Police Service, was assigned this responsibility, and he started recruiting people from the nearby villages as 'Civil Watchmen'.

He then had them trained in security duties. They were to be provided with caps for easy recognition, and he wanted a logo to be fixed on the caps so that they could be easily identified. To this end, he casually set about designing the logo that became our official emblem. We have no idea to what extent Mr Murthy had studied ICRISAT documents before designing the logo, but later, to make ourselves seem clever, we invented a full justification for the logo by describing each and every part of it with our mandate!

Thank you, Mr Murthy !

V Balu

Ralph Cummings and Les Swindale inspecting the site map.

The first year

Bert Krantz and Bob Pomeroy, the two staff members provided by Rockefeller and Ford, commenced work at the Patancheru site in 1972. They flew in from Delhi, stayed at the Ford guest house at Somajiguda, and returned to Delhi at the end of the week. Krantz planted the first agronomic trials near the area around the main gate with the help of SK Sharma, Mohan Reddy and Soudaiah. Bob Pomeroy started building the peripheral fence, the road, and the sheds *(near* the present Patancheru post office) and was assisted by HC Tewari, DN Sharma, BK Sharma and DS Bisht.

The main ICRISAT office was a rented building within walking distance of the Hyderabad airport. This building, now a motel, served as the administrative office, and housed the Purchase Officer (Mr Vaidyanathan, or 'RV as he was affectionately known), the Assistant to the Director (Balu), and the first Finance Officer (Mr Shori).

Coming to the site to work every morning meant walking into two villages, Kachireddipalli and Manmool, full of the morning din of the village folk, cattle mooing, chimneys billowing smoke and wafting a fine flavor of Telangana breakfast being cooked.

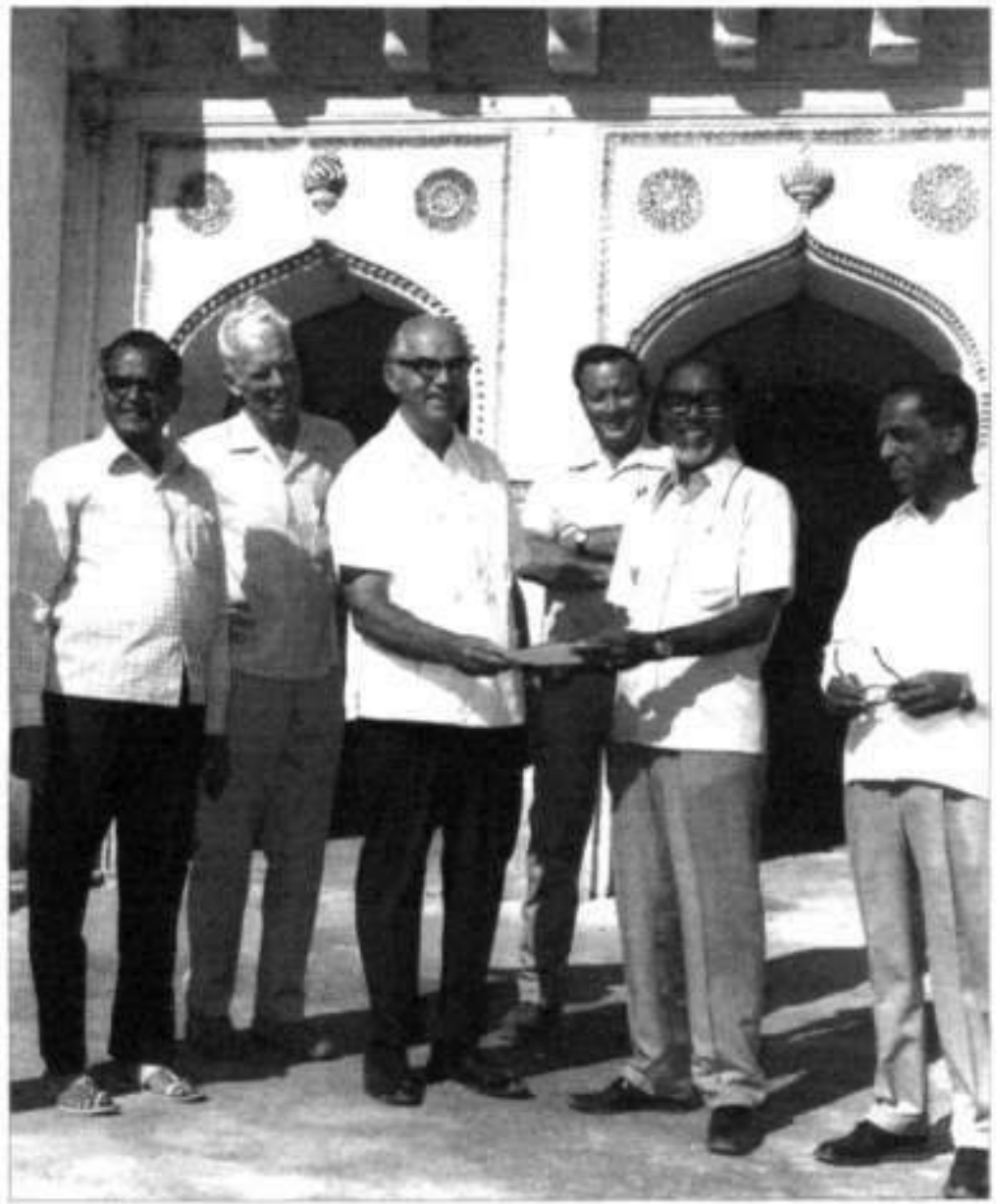
The first Board meetings under the chairmanship of Fred Bentley were to be held 4-5 July 1972 under a *shamiana* erected at the ICRISAT site, but heavy rains on the previous day resulted in the venue being changed to the Ritz Hotel in Hyderabad.

The Ford Foundation lent ICRISAT a few vehicles for use as group transport. An army tent, brought all the way from Kanpur in far northern India, was used as the first site office near the old FDO. Employees would be dropped off at the site every morning, ferried back and forth for lunch, and finally taken back home at dusk. Lunch was either a couple of sandwiches from home, or *mirchi bhaji* (chili fries,) at a thatched-roof tea shop on the highway. There was very little habitation or traffic between Patancheru and Sanatnagar railway crossing. It only took 15-20 minutes to reach Sanatnagar from Patancheru in those days!

Historical events and people in the seventies

Cummings, as the first Director of ICRISAT had set the following priorities for the first 5-6 years:

- Evacuate the two villages and resettle the villagers comfortably.
- Develop world-class research facilities and the experiment station.
- Organize research programs and recruit the best scientists in the world to lead them.



Bert Krantz, Ralph Cummings, Ernie Nunn and MA Baig, Joint Director of Agriculture, Andhra Pradesh, at the land transfer ceremony in front of the Manmool mosque, 1973.

Kaliva - the Director General's official residence

The US Government owned this residential property and the Director of the US Information Service Library occupied it. When the US decided to close down USIS libraries in non-consular towns in India, the one at Hyderabad was also wound up. At that time ICRISAT was looking for residential accommodation for its Director, and the building was purchased in 1972 for the princely sum of $ 30,000

(Rs 240,000). Today it is worth somewhat more than that!

The Foundation Stone

ICRISAT was in a hurry in 1972, and first things had to come first. Sound planning was essential, hut getting on with the research had to take precedence over physical comforts and permanent office and laboratory buildings. Good scientific equipment was obtained, but temporary space arrangements were made in rented buildings in Hyderabad and Patancheru.

Foundation stone laid by Indira Gandhi. Others present were MS Swaminathan, Fred Bentley, AP Chief Minister J Vengal Rao and Ralph Cummings.

I cannot say enough about the quality, dedication, energy, and team sprit of the staff, both expatriate and national, who were carefully selected and who molded themselves into a very effective interdisciplinary, highly cooperative group.

The Governing Board was exceptional. The Chairman, Fred Bentley, spent two months in charge of the operation in 1972 before I arrived. He served in a selfless, dedicated, and outstandingly competent manner and he will be greatly missed as he retires from the Board this year.

When the institute was chartered in 1972, it had been given the title to the use of 1394 hectares of land for 99 years, subject to renewal by mutual agreement. However, its exact boundaries had not been precisely demarcated on the ground. Approximately 4000 people were still resident in two villages on the site - Kachireddipalli and Manmool. Several thousand cattle were being grazed on the land, and some crops were still being grown by village residents.

Ralph Cummings
11 October 1982

Ground-breaking ceremony by Ralph Cummings.

To start with, Cummings got hold of JS Kanwar, an eminent soil scientist, then DDG of ICAR. Kanwar, who had played a key role in setting up the Central Research Institute for Dryland Agriculture (CRIDA), subsequently a major research partner of ICRISAT, was the perfect choice as Director of Research.

Bert Krantz and Jacob Kampen were brought in to lead the Farming Systems Program, Hugh Doggett to lead the Cereals Program (sorghum and millets), John Green for the Pulses Program (pigeonpea and chickpea), and Jim Ryan to lead the socio-economics group.

After a feasibility study by CGIAR specialists, ICRISAT added a fifth crop to its program - a crop that, kilo for kilo, contains more calories than sugar, more fat than heavy cream, and more protein, mineral and vitamins than beef liver. The miracle food was *Arachis hypogaea* - more commonly known as groundnut or peanut.

Reflecting on the decision to add groundnuts to the ICRISAT program, Cummings said, 'Groundnuts are vital to the nutrition and economics of the semi-arid tropics; the only question was when we should start the work...the needs of the 600 million people we serve left just one answer: IMMEDIATELY!'

To help develop the institute's campus, Cummings got two excellent architects, Doshi and Stein. He asked Bob Pomeroy, who worked at the University of California Davis, and was involved in redesigning the research farm at IARI in Delhi, to design the ICRISAT farm.

Land acquisition

Before any development or structural work could be undertaken, it was necessary to acquire land and resettle the villagers. To help the institute accomplish this task, the Government of India seconded SC Verma, a senior IAS officer, to ICRISAT. Verma, with the help of the District Collector and other local officials, identified alternative land and suitable compensation for the villagers.

The Collector of the municipal government was all-powerful with respect to ICRISAT's take-over of the 1394-hectare site. During the summer of 1972, Bob Pomeroy had to visit the Collector regarding the boundaries, moving the 5000 or so villagers, building the water tower and so on.

On one of his first visits, the Collector asked Bob if ICRISAT had started anything at the site. Pomeroy said, 'Oh yes, field work has started.' The Collector then asked if his nephew, who was looking for work, might get a job. Pomeroy asked him to send his nephew to see SK Sharma.

When the nephew arrived, he and another man were assigned to use a crude metal scraper to keep mud from jamming the wheels of a drill that was sowing sorghum in dampened soil. It was dull, muddy and tiring work. At the end of the day, the young man went to see Sharma and explained that this was not the kind of work he was looking for.

Sharma asked what kind of work was he looking for.

'A desk job.'

'Sorry, we don't have any desks!'

The young man did not return!

Fred Bentley

SK Sharma, one of the first to join, with Ralph Cummings.

It was hard for the villagers to leave their ancestral land and houses, but they were well compensated and their relocation was smooth and peaceful. They moved their household items in bullock carts and other means of transport that could be driven along the village pathways. They were allowed to move whatever they liked. Many of them even took away roof tiles and carved door panels for use in their new homes to remind them of their heritage.

I joined ICRISAT in 1974. When I came to Hyderabad in 1973 to be interviewed by Dr Cummings, I actually saw Manmool village being vacated. It was an orderly retreat, and I was impressed with the way the villagers were packing up their houses, storing away their tiled roofs on bullock carts, shingle for shingle. They did not seem at all unhappy about having to abandon their homes because they had been relocated to a nice place, and had received compensation and help in their move. How different their way of leaving home was, I thought, from the chaotic way our family had to flee our farm in eastern Germany in 1945 when the Soviets took over our land.

Matthias von Oppen.

Temple idol being shifted to Ramchandrapuram.

One of the most interesting sights was when the villagers shifted their temple, carrying their deity on a flower-bedecked cart, accompanied by a festive procession complete with the beating of drums and the sounds of the ceremonial conch shells. The deity was installed in their new temple in Ramchandrapuram.

Many of the houses in the two villages, Kachireddipalli and Manmool were *'kaccha'* (raw) structures made of mud plaster and bricks. Once the villagers removed the roof tiles, wooden doors and windows, there was not much left that could be used. These buildings were subsequently bulldozed.

A few stone structures with intact roofs remained, and these were later repaired for use as offices, labs and storage space. These buildings were all in Manmool village. Kachireddipalli village was to become the site of the future campus.

Three of the intricately carved door panels salvaged from the old villages remain on display at the reception area of the Administration Building, the Executive Dining Room and the Rendezvous Lounge at the Patancheru campus.

What the former villagers of Manmool say today (as told to PM Menon)

Poor people of our village have prospered because of ICRISAT, thanks to those who decided to set this great institution on our land,' said 80-year-old Chandriah Goud of Manmool village.

In 1972, Mr Goud's 160 acres, three deep wells and his ancestral home were taken over by the institute. He was compensated by the Government with Rs 600 per acre and a 400-square-yard plot in Ramchandrapuram, where he built a house in 1973 with most of the carved wood items taken from his old house at Manmool. Although he has never visited the campus for sentimental reasons, he was happy to learn that his land is still used for agriculture and that some of his laborers are working at the same farm land.

'Look around Patancheru and see how many industries have come and gone in the past three decades. Your institution is the only one that prospered because you all are committed to work for the poor people,' says Goud. 'My only regret is that I could not keep my family together because I have a smaller house now.'

Venkatiah, another former resident of Manmool who has been working for ICRISAT since 1973, says 'Ninety percent of the villagers are happy that ICRISAT has taken our land and we got

PM Menon interviewing Chandriah Goud.

employment with the institute.' His wife Satyamma worked for ICRISAT for 25 years and left under the voluntary retirement scheme in 1997. Venkatiah adds, 'Even though my father lost three acres of land in Manmool, I have no regret because most of us became employed by ICRISAT and we are better off than many people.' When asked about the remaining 10 percent, his answer was They did not want to do hard work and therefore missed the boat!'

Building an international village

At the completion of the rehabilitation process in 1974, Ralph Cummings, SC Verma and Mr Baig signed the handover documents for the land under the shade of a vast tree in Manmool village. Cummings performed the groundbreaking ceremony for the construction of the institute by breaking a coconut as is customary in this part of India. This also marked the demolition of the dilapidated structures in Kachireddipalli and Manmool villages.

Bulldozers were brought in to knock down the mud structures. The bricks and mud were cleared and used to make roads. During this process, many ancient statues and artifacts were found. These relics are now displayed in the serene surroundings of the Academic Court, courtesy of the Archeological Society of India.

One of the rare finds was a large statue of Lord Ganesha, the elephant-headed Hindu God, which was installed under the cool shade of a mango tree on ICRISAT Campus.

The inaugural speech of the newly constructed campus was given in 1979 by the Prime Minister of India, Shri Chaudhari Charan Singh. MS Swaminathan, Vice Chair of the Board, referred to the statue as an auspicious sign. Today, the statue is revered by many Hindu employees.

Buildings that could be used, like Manmool Castle, the school and the house of the village headman were saved from demolition. These buildings were used as

departmental buildings for crop physiology, entomology, pathology and breeding. The Pulses Program, headed by John Green, also had its headquarters in one of these buildings. John Green was subsequently designated as the 'Mayor of Manmool' to ensure general up-keep and maintenance.

Manmool Castle remains a unique and imposing structure. The village headman was said to have used it as a meeting place and as a courthouse. While the campus was under construction, Manmool Castle was used for the regular Friday seminars and other meetings. One of these was the Quinquinial Review.

The temples and the mosque in Manmool village were left intact and repaired to remind us of the tranquil relationship between the various religions in the village. To this day, these places of worship continue to be maintained and used in harmonious coexistence.

Manmool village before ICRISAT moved in.

After the Quinquinial Review (QQR), a few members of the staff sat down and composed the following poem.

QQR Blues

There was an item for QQR
About to come from near and far,
Jo see if ICRISAT was here to stay.
So we worked both day and night
Made our slides, new blue and white,
And nearly turned poor Duggal's turban gray.

With runs and re-runs, oh! so dry,
'Neath our colleagues' eagle eye,
With presentations full of pride
We cleared our plots of all the weeds,
We all but polished up the seeds,
And yellow notice boards we scattered far and wide.

Come at last the fateful day
With the chance to have our say
We braved stares and photographic flashes
We sought those carefully chosen phrases
('Cos, we did so want their praises!)
But it's over in a twinkling of eyelashes.

Then a quick trip round the fields,
Hardly time to mention yields!
Let 'lone read yellow notice boards so pretty.
Then it's someone else's turn,
We're no longer their concern,
And we wished we'd seemed a little witty.

QQR team visiting the fields.

But at least it's now all post,
And we're back to norm at last,
For those minutes cost a month of work quite steady,
And we're (old thev'll he more tare,
(That's the rumour in the air!)
What's that? A Jamboree? Nest August? Not already!

Roger, Wilco and Wout

A major event of 1979 was the in-depth review of ICRISAT conducted by a panel of nine experts headed by Dr Lloyd T Evans acting on behalf of TAC. The panel was highly commendatory of ICRISAT and its work and understood full well the tremendous challenge the institute faced in fulfilling its mandate.

Muslim employees at the Manmool mosque.

Building a world-class research facility

Agricultural research needs two basic facilities to complement each other, laboratories and fields. Ralph Cummings therefore constituted two advisory committees: the Farm Development Committee (FDC) and the Farm Research Committee (FRC). FDC was chaired by the Director General and FRC by the Deputy Director General. The membership of both committees consisted of representatives from the scientific, engineering and administrative services.

One of the first and foremost tasks was to demarcate the ICRISAT boundary. It was an arduous task because access roads did not exist and the whole area was overgrown with brush. The job had to be done on foot, and stone markers had to be placed with agreement from officials of the Revenue Department peering at age-old maps. Bob Pomeroy and his team did a commendable job of demarcating the boundary in record time.

To start with, there was no development and farm equipment available. Therefore, all development jobs had to be done manually. DN Sharma started construction of the 16 km peripheral fence. The initial fence consisted of 5-foot granite posts and barbed wire.

In 1973, a large contingent of heavy equipment operators undertook the land development work under the guidance of ICRISAT engineers. The contingent camped next to the campus lake (now Mary Cummings Memorial Park) until our own equipment arrived. They helped to make a peripheral road and access

Construction activities.

Undeveloped land.

Construction of main drain.

Fixing the boundaries

An individual in the Charminar area worked in the Registrar's Office and had a map showing the boundaries of the farm area, but he would not part with it. Therefore, every day, SK Sharma would pick him up from Charminar and drop him back again in the evening. Because of the shrubs and trees it was impossible to know exactly where the boundaries should be. A novel method using flares and smoke bombs was employed to identify the points. It was a huge task excellently executed by a committed group of people.

VBalu

roads around the farm. They also graded the first precision field, RP 1, near the present day petrol bunk.

Development work picked up pace once the institute's own equipment and operators were in place. All the equipment was old World War II surplus reconditioned and sold at dirt cheap prices. In fact, a new tire for one of the loaders cost ICRISAT almost as much as the price of the loader itself!

The Ford Foundation was also a great help in getting the institute under way. They lent their guest house at Somajiguda, which was retained until the mid 1990s. Besides being used as a guest house, it also served as an office until rented office space was acquired.

The Ford Foundation also lent the institute a Wagoner Jeep and several posh cars (Ford Fairmonts of course!) for commuting until some Mahindra Jeeps were obtained. At one point, a discussion was held about whether to buy jeeps or horses, since there were no roads on the farm! Ralph Cummings was in favor of jeeps - he did not want to risk misrepresenting the institute by looking like Telangana landlords on horseback!

Granite posts? Impossible!

One of the early development needs at ICRISAT was a quality, enduring fence to surround the entire property. After widespread solicitations of costs, it was decided to use hand-hewn granite fence posts. For some reason, some office in Washington was informed of the intention to use granite fence posts. The reaction was swift!

What was ICRISAT thinking of? If steel posts were good enough for other institutions why not for ICRISAT? A long correspondence ensued.

ICRISAT: Granite posts are less costly.
Washington: Nonsense! Steel posts cost only $xyz each in such a large quantity.
ICRISAT: Granite posts cost only half as much as steel.
Washington: IMPOSSIBLE!

But the Washington office became believers only when a certified true copy of the contract for granite posts was submitted by ICRISAT.

Fred Bentley

Constructing the fence.

The master plan

Looking at the Patancheru campus today, one is often struck by the aesthetic appeal of the place. The residential area, the campus, the eastern boundary with its eucalyptus trees, the laying of power lines, disposal of waste, the fields, the lakes and the variety of trees all over the campus are all the result of a series of intense brainstorming sessions in the early 1970s.

The land was put into production at ICRISAT as rapidly as the available equipment and manpower made possible. The first priority in the development process was the layout and leveling of 140 hectares of precision farming area for crop improvement and farming systems.

Ralph Cummings had a host of connections. He learned that the US Army was about to dispose off about a half million dollars worth of little-used machinery, much of which would be useful in ICRISAT's major construction activities. It was one of those take-it-or-leave-it deals, but the cost was only about a fraction of the machinery's value. It turned out to be an exceedingly good deal even though some of the very heavy machines were never used at all.

A year or so later, a representative of a major ICRISAT donor paid an inspection visit. The visitor saw the unused costly machines and was outraged to hear that ICRISAT had never used them! Fortunately, an ICRISAT Board member learned that the donor's agent was preparing a very negative report accusing ICRISAT of squandering money on unused costly machinery. The Board member managed to contact the donor's agent before the misguided report was submitted. And in the end, the report correctly praised ICRISAT's business savvy!

Fred Bentley

Field under development.

The work to be done was considerable, but there was a great sense of enthusiasm and excitement in the doing. For instance, when Bob Pomeroy was admitted to Nizam's Orthopedic Institute for treatment of a slipped disc, he continued to guide his field staff by holding evening meetings there.

Ernie Nunn took over in the early seventies when Bob Pomeroy left on health grounds. Ernie and his team ensured that all the features were put on ground as fast as possible to meet the ever-growing research demands on land and facilities.

Ernie and his engineers operated the heavy equipment themselves to train the locally recruited operators. The operators learned the new skills Quickly and were soon working 12-hour shifts. The team of engineers - Chitti Babu, Jameel Sayed and Pasha to name a few - under the leadership of DN Sharma, developed precision

To the men and machines who built the farm - we salute you!

Instant forestry and landscaping.

Instant lawns - just add water and serve!

The campus area in the early years was 'kutcha and muddy'. One day, I suddenly noticed that about 15 deep, wide pits had been dug and a crane was being used for some job. My curiosity got the better of me and... it was amazing! The eucalyptus trees that had been planted five years earlier on the northeast boundary of the ICRISAT campus were now 8-10 feet high and were being transplanted.

'What is happening?' I thought to myself. Pits were already there...trees were uprooted carefully from the boundary, brought by pickups to the selected areas, and planted with the help of cranes. The most astonishing aspect was that the open place which looked barren in the morning, was adorned with huge trees in that very evening! Later, the trees were comforted in their new homes, fed with compost and fertilizers and tended with regular doses of water.

A few days later, another green activity held me spellbound...big rolls and huge mats of green grass were being unloaded from a truck...I learned later that these had come from the areas around the ICRISAT lakes and ponds. In some areas, these mats were just placed on the top of bare soil and thus a lawn was made within a day!

The whole barren campus now smiled with greenery. It was simply magic — the lifeless land had turned into a lovely green field in no time. God bless our ICRISAT.

Mrs OP Rupela

fields, terraces, roads and drains. A more dedicated and enthusiastic bunch of learners would have been hard to find.

Most of the development work was completed by 1978. By 1982, the FDO crew had developed 100 hectares of precision fields in both the red and black soils, with irrigation facilities, as well as 500 hectares of arable fields, eight black soil and three red soil watersheds, roads and drainage networks. About 3 hectares along the southern boundary (where the train tracks are) was made available for the Manjira water pipeline by shifting the fence 12 meters to the north.

Land improvements were also completed at two of ICRISAT's Indian substations, Hisar and Bhavanisagar. In 1978, the Indian Government had agreed that ICRISAT would establish several substations in different parts of the country. This enabled us to extend the range of environments in which we worked.

Coconut breaking ceremony for Lake ICRISAT.

Furrow irrigation.

Irrigation and drainage

Because the Hyderabad area of India has very little groundwater, irrigation water had to be obtained by capturing run-off during the monsoon and storing it in small lakes (tanks) for use during the remaining eight dry months of the year - November through June. The ICRISAT farm consisted of two watersheds, a small one near the highway and a much larger one near Manmool. The farm was planned so that the water from the entire area drained into the lakes.
The dedication of Lake ICRISAT in April 1976 marked the completion of a major water storage facility at the center. Some 150,000 cubic meters of earth were rearranged to provide a storage basin 52 hectares in area, and 110 hectare-meters in storage capacity.

Mechanization

Hugh Doggett started planting crops with a belt planter, which was a carpenter's marvel. He had to walk behind it to make sure that the right seed dropped on the belt to ensure that the breeding material didn't get mixed up. He would turn

Planter at Patancheru.

purple with rage when the belts slipped, mixing his breeding material. Unfortunately, this happened frequently!

When Dave Andrews joined, he insisted on more reliable planters. That was the beginning of the mechanization process. After testing many planters, a combination of a John Deere base with locally adapted cone planters provided the best solution. Spraying, harvesting, threshing and seed drying equipment were designed by the local staff. Eventually, various commercial manufacturers adopted many of these innovations.

Construction of the campus

With the laying of the foundation stone by Prime Minister Indira Gandhi on 11 January 1975, the present research complex and headquarters of ICRISAT were officially moved off the drawing boards and into the construction phase.

The Prime Minister taking tea with Fred.

Prime Minister Indira Gandhi visits the campus

I am very happy to be here today because we give great importance to this institute and the work that it is undertaking.'

With those words, Prime Minister Gandhi began a wide-ranging address to a crowd of 3000 gathered to commemorate the start of the construction of ICRISAT's research complex on 11 January 1975. Mrs Gandhi outlined ICRISAT's mission and its importance to India and the world's semi-arid tropics.

She said that India was looking forward to guidance from ICRISAT in the urgent task of modernizing farming in the rainfed areas. She also expressed special interest in ICRISAT's groundnut research program and pointed out that India must substantially increase the availability of fats and oils, since the per capita intake was only 10 grams, about a third of what is considered essential.

Mrs Gandhi concluded by saying 'I am glad to lay the foundation stone of the building complex of this institute, which symbolizes the pooling of talents of scientists and technicians, regardless of nationality, race or color in this greatest of all wars, the war against hunger. The Government of India will continue to extend full support to the aims and programs of this institute and I wish all of you success in your works.'

Architect R Stein with the Governing Board.

The architects of the campus emphasized environmental harmony in their conceptual scheme. This meant extensive use of local materials such as Hyderabad's beautiful pink-gray granite. Environmental harmony also meant conservation of space and resources. All the buildings of the Institute were oriented for minimal exposure to the sun. Windows were shaded and roofs insulated. Heat-reflecting materials were used wherever possible. Sewage lagoons were planned to convert wastewater into environmentally safe water. Laboratory effluent was neutralized before it entered the lagoon system. Even rainwater was collected off the laboratory roofs, filtered, distilled and used for laboratory work. A final aspect of environmental harmony called for future planning. Provisions were made for a 100 percent expansion of research facilities within the immediate complex area, should the need arise.

Dr Kanwar inaugurating the Library.

February 1977: first buildings handed over

In a colorful ceremony on 18 February 1977, Ralph Cummings took possession of three buildings: the library and two international staff houses (subsequently occupied by Jacob Kampen and Bert Krantz).

The completed physical plant in the 32-hectare site in the northeast quadrant of the experiment station included an administration building, laboratories, a library, dormitories and flatlets. These structures were interconnected around courtyards.

Dallas Oswalt trying to cross the road at the international staff housing.

The changing of the guard: Ralph Cummings retires, Les Swindale takes over.

The architects designed the buildings around the old trees, which still flourish to remind us of the old Kachireddipalli village. Staff housing, workshops and recreational areas were also included. The staff housing was constructed where the houses of Kachireddipalli village had been to avoid building on the good agricultural land surrounding the village.

Cummings retires

Ralph Cummings, after more than 20 years in international agriculture and five as the Director of ICRISAT, retired in 1977. Words cannot adequately describe all that he did for ICRISAT. To put it simply, he was just the best man for the job. His knowledge of international agricultural research and India was a unique combination.

By the time of the arrival of the new Director General, Dr Leslie D Swindale, ICRISAT could no longer be described as a fledgling institute. The basic infrastructure was in place, although development continued.

On 18 December 1978, the Computer Center moved into the new buildings from their temporary lodging in Banjara Hills, signaling the start of a new era. The quarantine lab, telephone exchange, petrol bunk and post office were installed in 1979. ICRISAT also now had a creche facility for children of the Regular Work Force.

In the summer of 1979, the institute became even more self-sufficient when the campus canteen started operations, with facilities to serve 200 meals a day. Regular meals for all staff members were served from mid-July onwards, and the 205 Canteen, as it is still known, became a favorite lunchtime meeting place.

The construction work had already begun for the Phase II expansion of ICRISAT Center, including two laboratories and a crop work area. This was completed by late 1981. This expansion was necessitated by the decision at ICRISAT to include a fifth crop, groundnut, as well as the Genetic Resources Unit.

ICRISAT research in the seventies

Bert Krantz's agronomic experiments in 1972 were the beginning of the Farming Systems Program. These experiments were subsequently put into the watersheds by Jacob Kampen.

One of ICRISAT's most remarkable achievements was accumulating the vast collection of germplasm from all corners of the world for the Genetic Resources Unit, with duplicate collections in various other locations to ensure safe storage.

ICRISAT hosted nine workshops and conferences during 1981, and for the second year in a row ICRISAT organized a Farmers Day, which was attended by about 1550 farmers. They came to see the experiments and discussed their practical field problems with our scientists.

An army marches on its stomach, and ICRISAT is no exception. Bon appetit!

During that year, 13,760 visitors in 832 groups, averaging 11 groups per week, visited the center, the largest number of visitors being farmers (4384 of them) to observe the crop improvement experiments and to get firsthand information about the new and improved farming system technologies.

Training

The training program which started in 1974 was expanded in 1976. Several groups of trainees from five francophone African nations, and a large number of research fellows, most of them postgraduates who worked on their PhD degrees with collaborating universities, started work at ICRISAT under the direction of the institute's scientists.

International internships, research fellowships, research scholarships, in-service training programs, and apprenticeships provided skill development for 74 young

AS *Murthy, extreme right, with the first group of trainees.*

scientists. Between 1975 and 1979, 317 persons from 38 different countries received training. Nearly 200 scientists and technicians from 42 countries received individualized training at ICRISAT in 1981.

Expansion

In the early eighties, no large store of scientific information existed about ICRISAT crops. Meanwhile, a wealth of literature was available about crops like maize, rice and wheat. Important linkages had been established in 1978 with CIMMYT to utilize their facilities in Mexico, and with IITA to post our sorghum and millet breeders in Tanzania. Another key link was forged with ICARDA to locate a chickpea breeder at their research farm at Aleppo, Syria.

The year 1982 was a signal year for ICRISAT A decade of research in India lay behind. It was time to expand into Africa and Latin America, where ICRISAT mandate crops were grown for food and fodder.

SADC/ICRISAT facilities at Matopos, Zimbabwe.

The West African site selected was near Niamey, the capital city of Niger, in the heart of the African Sahel. The new research facility became known as the ICRISAT Sahelian Center (ISC). The groundwork for ISC had been undertaken the previous year, in 1981. Through an agreement with the Government of Niger, work on a 500-hectare site about 35 km south of Niamey was begun. ISC would be the base for work on millets, groundnuts, and farming systems in the Sahelian region of Africa.

Meanwhile, at the request of the Southern African Development and Coordination Council (SADCC), ICRISAT sent a fact-finding mission to that region to examine the state of research and development of ICRISAT mandate crops. An ICRISAT team under the direction of Lee House, who had recently joined ICRISAT, established a base at Matopos Research Station near Bulawayo.

Also in 1982, a regional groundnut improvement program for southern and eastern Africa was established at Chitedze Research Station in Malawi.

Further north, a sorghum and millet coordinator for eastern and southern Africa was posted at Nairobi in cooperation with SAFGRAD, the regional research organization.

Finally, ICRISAT's efforts in Latin America, where a small team took up residence at the campus of sister center CIMMYT in Mexico, resulted in the release of three sorghum varieties in Mexico, two in El Salvador, and seed production in Venezuela and Nicaragua.

During 1979 the main building construction program for ICRISAT Center was completed. Staff housed in about 20 buildings around Hyderabad were brought together in new buildings. Better staff communication leading to more effective and more innovative research would result from this consolidation. We even got our own post office, and to this day the address remains:

ICRISAT
Patancheru PO
Andhra Pradesh 502 324
India

Inauguration of ICRISAT Center

With the pulling of a string to unveil a polished granite marker, Mr Charan Singh, Prime Minister of India, inaugurated ICRISAT Center on 30 August 1979. That symbolic gesture climaxed years of planning, dreaming and working to house the world headquarters of a major scientific research center.
The ceremony was witnessed by members of the Governing Board, past and present, by the two Directors who had guided the institute since its inception, Drs Cummings and Swindale, distinguished guests from 28 nations, and hundreds of staff, visiting scientists and friends of ICRISAT from all over the world. Representatives of four international organizations - UNDP, the World

Prime Minister Charan Singh inaugurates ICRISAT Center.

Inaugurating the center with song.

Minister Singh at the 10" Anniversary celebrations.

Viewing genetic resources.

The Genetic Resources Unit was created on 1 January t979 by incorporating various crop germplasm activities of the institute into one coordinated unit. In 1983, the new facilities of medium-term Storage modules were made operational. The long-term storage modules of the genehank were inaugurated on W May 1991.

Bank, FAO and the CGIAR - also participated in the inaugural ceremony.

10th Anniversary

ICRISAT's 10th Anniversary was observed on 11 October 1982. The occasion provided an opportunity to review past accomplishments and look to the future with confidence.

The Chief Guest, Rao Birendra Singh, Union Minister of Agriculture and Rural Development, praised the work done by ICRISAT in the first 10 years, particularly its close collaboration with the research projects of the Government of India. He addressed the field workers and assured them that the hard work they were doing was helping to uplift the living standards of poor people in India and around the world. Special recognition was given to the 209 employees who had served ICRISAT since its inception.

An interesting side event during the 10th Anniversary celebrations was perpetrated by the so-called 'Beards International Syndicate', which is described elsewhere, who sponsored an amateur photography contest and drawing competition. The winners were:

10 years of ICRISAT	Neelam Bhalla and OP Rupela
Plants/Wildlife	Keith Trevor and P Soman
Landscape	Madhur Sinha and Upendra Ravi
Portrait	SK Manohar and VK Bhalla
Best drawing of beard	Lydia Flynn

The celebrations were not confined to the Patancheru campus. Our scientists in the other centers around the world sent messages of congratulations to Melak Mengesha, Chairman of the event.

Decade of excellence, 1983-92

During ICRISATs second decade period the institute's activities reached their peak. The financial position was very strong and several donor agencies expressed enthusiastic appreciation for the work. Availability of funds meant that more projects and programs were added and more staff recruited.

The major expansion occurred in the African locations. ISC was started, and the southern African locations in Zimbabwe and Malawi also started functioning at full strength. All developmental activities, including the physical plant facilities, were completed and the scientists were now in a position to work with the national programs. The eastern African program was also initiated.

The quality of training reached new levels. National programs started sending researchers of various levels and capacities to ICRISAT Center for training, and the institute's scientists took great personal interest in imparting knowledge to them both in the classroom and in the field. The work of some of these scientists received national and international acclaim.

As the scientists based at ICRISAT Center continued their struggle against plant diseases and constraints, their counterparts in Niger and elsewhere were forging ahead with new sorghum hybrids and pearl millet varieties. By 1984, the emphasis moved to integrated pest management (IPM) to control insect and weed pests. And throughout this period, large numbers of new genetic resource materials were continually added to the genebank.

External reviews

ICRISAT was evaluated by two external review panels in 1984. Both panels commended the institute for the way it was carrying out its research and managing its resources.

Before and after - ICRISAT facilities at Matopos Research Station under construction (above) and the station today (below).

SM Virmani talks to review panel.

The Program Review Panel, which had noted at the time of the last review of ICRISAT in 1978 that the Institute 'was still too young to have made many major contributions in its mandate crops' now said: 'The institute has come of age and is firmly established. It is beginning to make a significant contribution to the development of agriculture in the semi-arid tropics.'

The news wasn't always good!

March 1985: Responding to a question by a Member of Parliament in India's Lok Sabha relating to some adverse press reports against ICRISAT, the Honorable Union Minister for Agriculture in the Government of India defended ICRISAT, saying 'Press reports can't be taken as facts. They were based on frivolous information given by some dismissed and disgruntled employees.' He further stated that 'before conferring international status on ICRISAT, the Government carefully considered all the parameters. Central and State Governments were closely associated with ICRISAT's working. ICRISAT has been doing useful work for farming in arid areas and the results will be beneficial to India.' He convinced the parliament that there had been no misuse of that special status.

Kudos in Zimbabwe...

In 1985, the US Agency for International Development (USAID) reviewed ICRISAT's Sorghum and Millet Improvement Program (SMIP) based in Bulawayo, Zimbabwe. Their conclusion: 'The physical and scientific achievements of the ICRISAT team in Matopos are impressive indeed. We are also very pleased with the quality of personnel, you have been able to obtain to work in this program. ICRISAT can take considerable pride in the results of this first year's implementation.'

...and in Latin America:

ICRISAT's Latin American Sorghum Improvement Program (LASIP) received a certificate in April of 1985 in recognition of its work during the 1981-85 period on sorghum in Latin America and the Caribbean from an organization of nine countries in the region. Similar recognition had been received earlier for its work from 1977 to 1981.

Management reorganization

In 1986, the Governing Board approved a Management Reorganization plan for ICRISAT. Accordingly, in May 1986 an Office of the Director General was created comprising the Director General, a Deputy Director General with responsibilities for research and training, and two Assistant Directors General with responsibilities for Administration and Liaison. Five Directorate posts were also created: two Executive Directors for West Africa and Southern Africa, and three Program Directors at ICRISAT Center for Cereals, Legumes and Resource Management. All of them would be members of the Institute's central Management Committee.

Identity cards

At a meeting on 31 July 1986, Director General Swindale wore an ID Card presented to him by Assistant Director General, Michael Goon. Immediately thereafter, new ID cards were issued to all employees, and as of 1 August 1986 staff were required to wear their ID cards while on duty.

An important milestone was reached in 1987 with ICRISAT's completion of 15 years of international service. The institute celebrated its 15th anniversary on 16 October, the day designated as World Food Day by FAO.

75th *Anniversary.*

JS Kanwar retires.

At the request of the Government of India, ICRISAT set up a new unit called the Legumes On-Farm Testing and Nursery (Legoften), a multidisciplinary unit that worked with state scientists to compare the methods of growing legumes.

In early 1988, Deputy Director General JS Kanwar retired after 15 years of distinguished service. He continued to be associated with ICRISAT as Deputy Director General Emeritus, an honor bestowed on him by the Governing Board that he holds to this day.

TAC and CGIAR meetings at Patancheru

The 46th meeting of TAC, as well as the Center Directors' meeting, were held at ICRISAT Center 13-21 June 1988. The meetings were attended by representatives of all 13 CGIAR centers (there are now 16), plus all 18 members of TAC, as well as six members of the CG Secretariat, together with special advisors, donor representatives and invitees - 90 in all!

The participants heard presentations on the institute's work from the three Program Directors, John Montieth, Duncan McDonald and Jan de Wet, and toured the facilities. Mr NT Rama Rao, Chief Minister of Andhra Pradesh, hosted a State Banquet in the Jubilee Hall.

At the end of the meetings, Dr Alex McCalla, TAC Chair, wrote:

On behalf of TAC, I wish to put on record our sincere appreciation and thanks to the ICRISAT staff for the warm hospitality and excellent reception given to us during TAC 46. The ongoing work of ICRISAT is impressive in its breadth and dedication to the needs of Asia and Africa. We know your Institute is dedicated to the goals of the CGIAR and we applaud you and your staff for your effective efforts. We leave ICRISAT with warm memories of the pleasant stay and a successful meeting and look forward to another opportunity to visit with you again.

An external evaluation team of the SADCC/ICRISAT Regional Program in Zimbabwe concluded in its report in 1988 that the program 'has made excellent progress in addressing most of the objectives anticipated in the project design, and is ahead of schedule and has produced results earlier than expected in a number of areas.' These remarks echoed a similar report made in 1987 of an external evaluation of ICRISAT's work in Mali.

Development of human resources was a very important aspect of technology transfer. In 1989, 258 participants from 51 countries received training at ICRISAT Center, while 103 trainees from 11 countries benefited from training programs at the SADCC/ICRISAT Program in Zimbabwe.

In 1990, external program and management reviews were undertaken. The panel members inspected every ICRISAT program and nearly every ICRISAT location. They also visited partner countries in Africa and Asia. At the end, they submitted a highly positive report. Their final report said, in part:

Impact in other areas and for the other mandate crops is not yet as visible, but there are many good reasons for optimism. The donors who support ICRISAT have every reason to continue that support with confidence, but they must remember that ICRISAT's mandate region, the semi-arid tropics, is one of the most difficult in the world to work in, and that it contains some of the poorest countries in the world.

In 1990, research to develop genome maps of sorghum and pearl millet was commenced in collaboration with Italy, the UK and the USA. A Geographical Information System (GIS) to manage and display multiple levels of spatially distributed data was installed at ICRISAT Center.

World's first hybrid pigeonpea

ICPH 8, the world's first hybrid pigeonpea plant, was released to farmers in 1991. This technological breakthrough was significant because it was the first time any hybrid of a pulse crop had been developed anywhere in the world.

Pigeonpea hybrid reaches farmers' fields.

Les Swindale, after driving the institute for 15 years, learned to drive a tractor!

Dr and Mrs Swindale after planting their farewell tree.

The institute was committed to caring for the future of the genetic resources preserved in the genebank. In 1991, the chambers for long-term storage of mandate crop germplasm became functional and were formally inaugurated in May 1991.

Director General announced his resignation from ICRISAT in July 1991 after serving with distinction for nearly 15 years - half of ICRISAT's total life span.

Swindale honored

Director General Swindale was one of the 23 eminent persons honored with the *Padma Bhushan* on India's Republic Day in 1991. The *Padma Bhushan* is the third highest civilian award given by the President of India. This award, which is also a title, is reserved for eminent public figures for significant contributions to the lives of the Indian people. Amongst the awardees that year, Dr Swindale, a New Zealander, was the only foreign national.

LD Swindale receiving the Padma Bhushan *from President R Venkatraman.*

Commenting on the award, Dr Swindale said that he was deeply honored and humbled by such recognition. He added, 'I am grateful to the Government of India for showing its appreciation of ICRISAT's contribution over the period that I have been the Director General.'

Under Swindale's leadership, ICRISAT had become the largest of the 13 Centers of the CGIAR. Despite his management responsibilities, he kept his scientific hat firmly in place and remained a well-respected soil scientist and Fellow of the American Society of Soil Science, the American Society of Agronomy and the New Zealand Institute of Chemistry.

On 28 June 1991, a gathering of nearly 2000 members of the ICRISAT family assembled at ICRISAT Center to bid farewell to Les and Delle Swindale, who led, nurtured, built, and expanded the institute for over 14 years. On the occasion, Board Chair Bill Mashler announced that Dr Swindale had been awarded the title of Director General Emeritus.

He commended the role of Dr Delle Swindale for her role as the first lady of the center, foregoing high professional qualifications to stand at the side of her husband to help create an institution that combined a wide spectrum of scientific resources with a large measure of human warmth and affection.

New DG takes charge

Dr James Garrett Ryan, an Australian, assumed responsibilities as ICRISAT's third Director General on 19 August 1991. He was formally given charge of the center with a symbolic handshake from Chairman Bill Mashler.

Accepting his new assignment, Ryan said, 'I am optimistic that the various stakeholders of ICRISAT will continue to regard the center as an essential ingredient in their agricultural R&D activities in developing countries. My wife Wendy and I are delighted to be joining the ICRISAT staff in this noble endeavor.'

Welcoming Dr Ryan, Dr Mashler said 'Today marks the third time that ICRISAT welcomes into office a new Director General, and I extend, on behalf of ICRISAT's Governing Board, its entire staff, and the CG system our very warm and affectionate welcome.'

Mashler noted that the event marked the beginning of a new phase of ICRISAT's history. 'I believe that the next phase will be the one in which ICRISAT's role will heavily emphasize cooperation with our partners in the national agricultural research systems of the developing countries. It will be a different ICRISAT, but one that will offer and meet exciting challenges in pursuit of its mandate.'

The new Director General Jim Ryan with Bill Mashler, Board Chair, and YL Nene, Deputy Director General.

Prime Minister Narasimha Rao visits ICRISAT.

The following year was another milestone because it was the institute's 20th Anniversary. The occasion was celebrated in many ways at many locations - at Niamey in Niger, at Matopos in Zimbabwe, at Bamako in Mali, at Kano in Nigeria, at El Batan in Mexico, at Nairobi in Kenya and at Lilongwe in Malawi.

That year a record number of 210 trainees and 11,000 visitors came to ICRISAT Center. Over 1200 farmers visited Patancheru on Farmers Day and each of them was given seeds of released ICRISAT cultivars.

Prime Minister visits ICRISAT Center

Mr PV Narasimha Rao, Prime Minister of India, participated in the 20th Anniversary celebrations as Chief Guest. After Indira Gandhi in 1975 and Charan Singh in 1979, Mr Rao was the third Indian Prime Minister to visit the Patancheru campus. He arrived by helicopter on 29 August 1992, where he was greeted on the cricket field by both outgoing Board Chair Bill Mashler and the new Chair Eric Roberts, as well as Director General Ryan. At a commemorative program in the auditorium, the Prime Minister congratulated the scientists for their efforts on behalf of the people who live in some of the world's most difficult agricultural regions. He called on ICRISAT and other research institutions to foster closer liaisons with farmers. A mixture of the farmers' 'robust common sense' with an appropriate dose of scientific research, he felt, was necessary to develop agriculture in India.

The Indian farmer, Mr Rao said, who for centuries had to struggle against the vagaries of nature, had developed a great knack for survival. 'He has to be informed about the new forms of cultivation and once he is informed sufficiently, there is no end to what he could do,' the Prime Minister added.

Celebrations also took place in Sadore...

The 20th Anniversary was celebrated at ICRISAT Sahelian Center in Sadore, Niger, on 4 September. After an opening speech by the Executive Director,

Charles Renard, 10- and 15-year honorees were recognized. A representative of the honorees also spoke on the occasion. The formalities were followed by a lunch for the entire staff.

Augmenting the celebrations was a series of three open houses. A group of 30 Government officials, diplomatic corps representatives from donor countries, and officials from UNDP and FAO were invited to the center on 8 September. The general public was invited on 10 September.

...in Bulawayo...

Executive Director Lewis Mughogho and his staff were honored by the presence of Mr Kangai Zimbabwe's Minister of Agriculture. The main activities included the handing over of the creche facilities built with ICRISAT funds to the Matopos community. Also, in support of drought relief, a check for Z$15,000 contributed by ICRISAT staff as well as 330 bags of seed harvested from ICRISAT experiments were presented to Zimbabwe's National Drought Relief Fund.

...and in Nairobi

The Eastern Africa Regional Cereals and Legumes Program (EARCAL) held its own 20th birthday party for the institute on 1 September. All ICRISAT employees in Kenya, including the staff of Kiboko Research Station, assembled at the Nairobi office. The distinguished guests were Dr WN Masiga, Director, Organization for African Unity, and Mrs MN Wadele, Assistant Director, Kenya Agricultural Research Institute (KARI). Dr Masiga stressed the importance of the presence of ICRISAT in Kenya and the confidence it generates amongst Kenya's national scientists. Mrs Wadele expressed her appreciation for the excellent cooperation between ICRISAT and KARI. Special anniversary caps and t-shirts were presented to the guests.

ICRISAT-Nigeria Annual Day.

The nervous nineties

Les Swindale left the institute in July 1991, and James G Ryan became the third Director General the following month. Ryan led the institute for six years, and was succeeded in September 1997 by ICRISAT's fourth chief executive, Shawki Barghouti, a senior World Bank administrator, who left the institute after a two-year stint. He was replaced by Dr Swindale as Interim Director General, while a search was conducted for a successor - a search that ultimately identified ICRISAT's fifth DG, Willie Dar.

The nineties were plagued by a new phenomenon - dramatic declines in funding. Starting in 1991, funding dropped 17.4% over the next three years. Cutbacks in staff were unavoidable: internationally recruited staff (IRS) numbers fell by 25% and nationally recruited staff (NRS) by 10%.

A voluntary retirement scheme was announced in August 1994, and by the end of the year, 381 NRS and 169 RWF had left. Some of them had served the institute for more than 20 years. Funding for 1995 was $1.3 million short of the budget target - necessitating another staff cut, this time for NRS at the ICRISAT Sahelian Center in Niger. From 240, the staff complement fell to 178.
Paradoxically, despite the downward spiral in funding, ICRISAT's scientific achievements were at an all-time high. In 1996, ICRISAT won the King Baudouin Award for the first time. The award, the CGIAR's highest accolade for scientific excellence, was given in recognition of our exemplary research on pearl millet. Another major award that year was for Outstanding Nationally Recruited Scientist. The winner was Dr SB Sharma for his work on nematodes.
The excellence of our research was also recognized by the Fourth External Program and Management Review panel, which stated that 'ICRISAT has a long list of achievements to its credit.' The panel pointed to the mounting evidence that ICRISAT materials truly benefited resource-poor farmers. ICRISAT could justifiably claim that its scientific health could scarcely be better, but unfortunately the same could not be said of its financial health!

SB Sharma receives the Chairman's Science award.

King Baudouin Award, 1996.

As Director General, my proudest moment was when ICRISAT won the King Baudouin Award for its pearl millet research. To have it followed the very next year for pigeonpea research was unprecedented and a tribute to all the fine researchers and support staff. My saddest moment as DG was overseeing three staff downsizings during my tenure. To have to say goodbye to so many colleagues and friends of long standing remains the most difficult and painful experience of my life.

Jim Ryan

Martha B Stone, our champion in Canada, whose forte is Library and Information Science. Madha joined ICRISAT's Governing Board in 1996, and was elected Chair in 2001, a position she still holds. Re-affirming her faith in the management and staff of ICRISAT, Martha says The strength of the ICRISAT staff, their commitment to the mission of the institute and their determination to do good science, will ensure that any perceived obstacles will be overcome with dedication and determination.'

Dr Shawki Barghouti, a Jordanian national, was appointed Director General in 1997.

In 1998, ICRISAT became the first center in CGIAR history to be awarded the King Baudouin Award for a second consecutive time. The 1998 award recognized the innovative science and partnership achievements in pigeonpea research. Top CGIAR awards were also bestowed on Drs KN Rai, AK Sinqh and HC Sharma.

Dr Barghouti at his farewell function.

KN Rai with his CGIAR prize.

First Day commemoration cover released by Posts and Telegraphs.

In January 2000, Dr William Dollente Dar took the helm of ICRISAT. He joined at a time when the morale of the institute was at its lowest, and had the unenviable task of restoring confidence after a series of cuts in funding and personnel.

The New Director General of ICRISAT

William Dar, or 'Willie' as he preferred being called, joined as Director General in January 2000. Born in the Philippines in 1953, he assumed the position at the age of 47 to become the youngest Director General in the institute's history.

Willie Dar, who had risen through the ranks to become the head of his country's agricultural research organization and then Acting Secretary of the Department of Agriculture (equivalent to Minister of Agriculture), had served as a member of the ICRISAT Governing Board for nearly three years (January 1997 to September 1999). He was also a member of the Boards of Trustees of CIMMYT and ACIAR, and was a member of the Oversight Committee of the CGIAR.

CM seeks ICRISAT s help

The Chief Minister of our host state, Andhra Pradesh, underscoring his interest in strengthening ties with ICRISAT, said 'I want to use your services in a big way for total transformation of the entire State. We need you to help develop a future for us. Watersheds, water harvesting, IPM, productivity increases, training...we are interested in all aspects.' He offered state facilities for use as pilot programs to be led by ICRISAT - for example, the development of a demonstration watershed for each of the state's 23 districts.

Willie Dar, ICRISAT's fifth Director General, takes over.

Chief Minister Chandrababu Naidu visits ICRISAT

CM Pattanayak in Burkina Faso. 1975.

Reaching out to the world

ICRISAT has a global mandate with a major role to play in Africa, because large parts of the continent fall within the semi-arid tropics. As early as 1973, a CGIAR team traveled extensively in Africa to develop proposals for sustainable development on the continent. They also met scores of scientists who were working on our mandate crops. Several of these scientists - JC Davies, DJ Andrews, Stan King, Charles Renard and Lee House to name a few - later joined ICRISAT.

The team suggested that four cooperating centers in Africa, representing very different ecological zones - Alemaya in Ethiopia, Serere in Uganda, Samaru in Nigeria and Bambey in Senegal - be considered the starting points for our African thrust. The Committee's report was the basis for commencing work in Africa in the following years. Work first started in Burkina Faso and expanded over the years, demonstrating that we are a truly international Institute.

Africa, 1975

Reports from Afric a in the early to mid seventies pointed a grim picture of famine and drought. According to the UN Food Council, 17 countries were facing 'abnormal food shortages/ Senegal had suffered the worst drought and recorded the lowest groundnut yields in 40 years.

'The only things that will help in the long run,' said a Newsweek report 'are much easier said than done - projects such as improving agric ultural science and reserch throughout Africa.'

It was in this context that the ICRISAT West African Cooperative Program was initiated in 1975 with UNDP funding. A network of cooperating centers was set up to generate and exchange improved sorghum and millet varieties with national programs. The program covered 12 countries in West Africa from Senegal to Chad. Initially, the emphasis was on sorghum and millet — the staple cereals of the region - but the program later expanded to include farming systems, economics, and groundnut research.

The program in Africa began in 1975 when CM 'Pat' Pattanayak, a sorghum breeder, was posted to Burkina Faso (then Upper Volta). Sorghum varieties of African origin were already being tested at Patancheru, and related work was also under way in eastern Africa, Latin America and a number of Asian nations.

Rapid strides were made in 1976 when RC McGinnis, a well-known Canadian scientist, joined as Associate Director for International Cooperation. The West Africa Sorghum and Millet Improvement Program was launched with UNDP support, led by Claude Charreau, a French scientist. Headquarters were established in Dakar, Senegal, and the program covered 11 West African countries, with staff posted in Nigeria, Burkina Faso, Niger and Senegal - and later in Mali. During the next stage, the program expanded eastward to Tanzania, Kenya and Ethiopia.

SC Gupta and Senegalese colleagues, 1982.

By the end of 1976, 14 scientists were working for ICRISAT in West Africa and Sudan. They worked with the national programs because as yet ICRISAT did not have facilities of its own. These pioneers, besides Pattanayak and Charreau, included BB Singh, S Okiror, S Clark, JA Frowd, WA Lambert, WA Stoop and RP Jain.

In 1978 the CGIAR gave formal approval for an ICRISAT core program in Africa. Soon, ICRISAT had developed facilities in several national centers, and the number of scientists grew to 19 by the end of 1978, with the largest team based at Kamboinse in Senegal.

In 1981, ICRISAT signed an agreement with the Government of Niger to set up the ICRISAT Sahelian Center (ISC) on a 500-hectare site in Sadore, near the capital city of Niamey. This was planned as the regional base for millet,

groundnut, and farming systems research. The new center would also have facilities for training.

August 1985: Niger pledges support. *The President of Niger assured ICRISAT of his strong support. Brigadier General Seyni Kountche, Head of State, spoke of his concern about agricultural production in Niger, and specifically of the need to strengthen research.*

Construction began in 1983. The area was fenced, two bore holes drilled, temporary office and storage facilities built, and 56 hectares developed for research plots. Main construction began in 1986, including a training hostel, later named the Training and Visitors Center (TVC), in Niamey. On 7 March 1989, the President of Niger, General Ali Saibou, formally inaugurated the newly completed ISC.

Inauguration of ISC.

Charles Renard with the President of Niger at ISC.

The center was built by Delens and Company of Belgium. The complex included laboratories, a conference center, a library, classrooms, a cafeteria, a medical center, workshops, stores and administrative offices.

Abache Chaibou, Niger's Minister of Higher Education, Research and Technology said, 'The construction of the center is indicative of the contribution ICRISAT is making in our endeavor to achieve food self-sufficiency, the battle cry of the Sahelian countries.'

By the end of 1986, scientists were posted in 10 African countries. The first ICRISAT varieties were released in Sudan in 1983: sorghum variety Hageen Dura and pearl millet variety Ugandi.

Eastern and southern Africa

In 1981 we began to extend our work into southern Africa. At a meeting in Lusaka, Zambia, the heads of state of the nine countries in the region requested our assistance. In response, ICRISAT established a groundnut program in 1982, at Chitedze Agricultural Research Station, near Malawi's capital city of Lilongwe. Initial work focused on developing resistance to rosette virus, and eventually led to a series of breakthroughs.

Groundnut program starts in Malawi.

The Malawi program started from a small laboratory room in the premises of the Seed Technology Building at Chitedze. For several months, this single room served as office, laboratory and storage. Since the budget contained no provision for furniture, the scientist had one borrowed stool to sit on and the secretary a pile of bricks! It took a couple of months and intervention by Ron Gibbons to obtain minimal furniture. Meanwhile, the research program took off vigorously, soon making its presence felt in the region. After that there was no looking back. IDRC, the donor, was so impressed with the project that it continued to support it until 1986/87. In one of his letters, H Daggett, the Associate Din-dor of IDRC, a strong supporter of the project, wrote to the project staff that the Malawi project had given a very high return on eac h dollar IDRC had invested.

SN Nigam

A tall tale: Gebisa Ejeta, the tallest scientist, with Hageen Dura.

The East African program gained momentum with the posting of a scientist in Nairobi, Kenya, who worked closely with Semi-Arid Food Grain Research and Development (SAFGRAD), which was largely funded by USAID. The work covered Sudan, Ethiopia, Somalia, Kenya, Uganda, Rwanda, Burundi and Tanzania.

In 1983, the SADCC/ICRISAT Sorghum and Millet Improvement Program (SMIP) was formally launched with USAID funding, headquartered at the government's Matopos Research Station near Bulawayo, Zimbabwe. A formal agreement was signed with the Government of Zimbabwe on 24 February 1984. Lee House joined as the Executive Director and the first cropping season started in November 1985. Construction was initiated in 1986 and completed in late 1987 under the leadership of by Ernie Nunn, the Station Manager of ICRISAT Center, India. Meanwhile, the program functioned from a building popularly called the 'Chicken House'.

Lee house and children near the 'Chicken House' at Matopos.

Research starts at SADCC/SMIP (Bholenath Verma and Tunde Obilana).

A new program on pigeonpea was started in 1992 in Nairobi with funding from the African Development Bank. Dr Said Silim, who was transferred from Patancheru to lead the new program that year, is now ICRISAT's Regional Representative for Eastern Africa.

In the mid eighties, ICRISAT began a farming systems program in Ethiopia, focusing on deep Vertisols. Our experience in managing these heavy black soils in India was successfully transferred in a cooperative project with generous funding from the Dutch government. Partners included the Ethiopian Ministry of Agriculture, the Institute of Agricultural Research, ILCA and Alemaya University.

Foundation ceremony at Samanko, Mali, 11 August 1989.

Namibian President Sam Njoma with Okashana 1.

Said Silim at Kiboko Research Station, Kenya.

Jim Ryan signing an agreement with Eritrea.

Vertisol project in Ethiopia.

In 1991 ICRISAT pearl millet variety Okashana 1 was released for large-scale cultivation in newly independent Namibia, and it took off like a shot.

The Samanko facilities were completed in early 1991. That year Dr Swindale was presented with the Golden Ciwara in recognition of his services to Mali. The program was commended by the USAID evaluation committee: The program has been extremely cost effective and the model may prove to be one of the most effective in the development of research and training program'.

During the nineties, agreements were also signed with the governments of Kenya, Eritrea and Angola.

ICRISAT to the rescue

In 1992, southern Africa suffered the worst drought in at least a century - possibly its worst ever. Food and seed shortages were widespread, and traditional crop varieties were in danger of being irretrievably lost. The African Development Bank sponsored a germplasm collection mission covering Namibia, Zambia and Zimbabwe. Led by ICRISAT botanist S Appa Rao, the team collected sets of seeds and distributed them to the national programs. All the material collected was conserved, as part of a broader collection, in the ICRISAT genebank in Patancheru.

Collaboration in Asia

Collaboration with the NARS first started with India under the aegis of ICAR. Collaborative programs were implemented

mainly through the government's All India Coordinated Projects on various crops. These efforts were expanded to other countries in Asia - beginning with Thailand, Sri Lanka, Pakistan and Bangladesh. The first agreement with China, through the Chinese Academy of Agricultural Sciences, was signed in May 1988.

An agreement was signed with ICAR in 1977 for all cooperative programs in India. Research stations at universities were identified for nurseries and trials: at Bhavanisagar in Tamil Nadu, Dharwar in Karnataka, Hisar in Haryana, Gwalior in Madhya Pradesh, and in Jammu and Kashmir.

The bond with ICAR is even stronger today. Dr Panjab Singh, an internationally known agricultural scientist, has had a long and close association with ICRISAT since the time he was Director of the Indian Agricultural Research Institute. Dr Singh assumed directorship of ICAR in 2001, and was welcomed into ICRISAT's Governing Board, as Vice Chairman, in October that year. 'For faster and bigger impact to improve the region's food security, ICAR and ICRISAT will strengthen their partnership and jointly identify new thrust areas for collaboration in research and training,' said Dr Singh when he joined our Governing Board.

Cooperative programs also started in the Middle East - Saudi Arabia, Yemen and Syria - and a chickpea scientist was placed at ICARDA in 1977 to work on kabuli chickpea.

The Asian Grain Legumes Network (AGLN) was formed in 1986 in Sri Lanka, and the Cooperative Cereal Research Network (CCRN) was launched a year later. In 1992, the two networks merged to become the Cereals and Legumes Asia Network, or CLAN. By 1999, CLAN had grown to include 14 countries.

USAID support for the Malawi program.

ICAR Director General Panjab Singh, and CGIAR Chairman Ian Johnson with Willie Dar.

Panjab Singh joining Team ICRISAT.

ICRISAT signs agreement with China.

In India, the Legume On-Farm Testing Program (Legoften) started in 1987 in response to a request from the Government of India to help extend improved crop management packages for legumes in five states. ICRISAT also became the facilitator for the Rice-Wheat Consortium for the Indo-Gangetic Plains for several partners in 1994.

Latin American initiatives

During 1975/76, collaborative programs were launched in Brazil with support from the Ford Foundation. ICRISAT posted an agronomist at CIMMYT in 1982 to work on cold-tolerant sorghum. Work was also conducted in El Salvador, Nicaragua, Guatemala and Haiti. By 1984, two scientists were based at CIMMYT. A network involving 11 countries known as CLAIS (Comision latinoamericano de investigadores en sorgo) was established. Later, active partnerships evolved with CIAT and national programs in Bolivia, Brazil, Colombia, Peru and Venezuela with support from the Inter-American Development Bank.

LD Swindale, CLL Gowda and RS Paroda - making the strong ICAR-ICRISAT partnership even stronger.

The African hubs

The African programs are now consolidated into three hubs: Niamey in West and Central Africa (WCA), Nairobi in eastern Africa, and Bulawayo in southern Africa. Smaller stations in WCA exist in Bamako, Mali and Kano, Nigeria. In southern Africa scientists are posted at Lilongwe, Malawi and Maputo, Mozambique.

A Ramakrishna with Vietnamese farmers.

Training continued to grow

Fellowships and training

Human resource development for national staff of our partner countries has always been an important part of ICRISAT's work. The Training Program started when ICRISAT rented a building in Banjara Hills, Hyderabad. Four Nigerian trainees joined Dr AS Murty, the first Training Officer, in 1974. This was the first 6-month in-service training course, a program that ran uninterrupted for 22 years, until 1996.

Hostel opens for trainees

With the traditional breaking of a coconut, Ralph Cummings welcomed the first residents of the ICRISAT international hostel at a large private residence in the Banjara Hills, Hyderabad, a stone's throw from Kaliva, the Cummings' home. Furnishing and refurbishing of the building was carried out under the leadership of Mary Cummings, who described the results as 'comfortable but not elaborate.'

The participants traveled to Patancheru in a microbus every day, each clutching a packed lunch from the Rock Castle Hotel as there were no eateries on or around the campus.

In addition to the 6-month courses, short courses were organized on specific topics. Programs for research scholars and fellows were also initiated and continue to this day. Trainees from non-English-speaking countries arrived two months earlier to undergo crash language courses at the Central Institute for English and Foreign Languages (CIEFL), and subsequently at Osmania University.
The English language courses were intensive: 0900 to 1630, Monday to Saturday. The trainees made amazing progress, and began functioning in English as soon as they joined the main group for the 6-month course. They came from China, Thailand, Vietnam, Mexico, Mozambique, Senegal, Burkina Faso, Mali, Niger, Chad, Togo, Benin, Guinea and many other countries and spoke French, Chinese, Spanish, Thai and Vietnamese. It was a tough task indeed, but they succeeded wonderfully!

Trainee hostel inaugurated by Ralph Cummings, 19 April 1974.

The first four trainee came to ICRISAz in 1974. They used the Rock Castle fat ilities for lodging and their mealk with classes held here and there on Road 12 and various offices.

I joined ICRISAT in April 1975 and I stayed in the old police barracks, along with eight trainees from Nigeria and two from India. Classes and offices were held there, as well as in Manmool Castle on the farm (where institute seminars were also held, it being the largest area that could be darkened during the day), and we had our own cook and laundry service.

Dallas Oswalt

Milestones in Africa

1975	African program launched in Burkina Faso.
1976	Western Africa sorghum and millet program starts at Senegal.
1978	A core program for Africa is approved.
1981	Government of Niger agrees to establish ISC. Ugandi released in Sudan.
1982	Hageen Dura released in Sudan.
1983	Foundation laid for ISC.
1984	SADDC/ICRISAT Sorghum and Millet Improvement Program starts.
	Regional program starts at Katumani, Kenya.
1986	EARSAM and WACASRN established.
	ISC inaugurated.
	Foundation stone laid at Samanko, Mali.
	EARCAL facilities established at Kiboko, Kenya.
1993/94	First Women Farmers Days in Malawi, Zimbabwe and Niger.
	ICRISAT elected to lead the Desert Margin Initiative.
	Seeds of Hope project for Rwanda.
1997	Seeds of Hope projects for Eritrea and Angola protracted war.
1998/99	Seed project at ISC to combat the 1997 drought.
	Expanded agreement signed with Zimbabwe.

Training session at Somalia.

by leaps and bounds from the temporary facilities. In the first five years, 318 persons from 38 countries were trained. With the completion of campus in 1979, trainees were shifted to the spanking new facilities in the newly built dormitories. The first kitchen to feed trainees opened in 1979 at the swimming pool with service for 47 trainees. By the end of the year, the main canteen in Building 204 had also opened.

At the end of the first 10 years, more than 900 persons had completed training at ICRISAT Center. During the 1980s, the training program averaged 100 participants. The tennis courts, the swimming pool, the football ground - young scientists from all over the world were everywhere.

Training also started in the African centers, mostly specific short-term courses tailor-made for the regions. For example, around 940 trainees attended courses at Matopos, Zimbabwe. A major initiative was launched in 1975 with USAID funding. Around 156 national staff from nine southern African countries were sent to various US universities for graduate studies with help from INTSORMIL as the coordinating agency. This was classic international cooperation - highly qualified staff whose skills are comparable to those anywhere now run ICRISAT's national programs in Africa.

The first lunch at the swimming pool.

English language course at CIEFL..

Dallas Oswalt with in-service trainees, 1975.

Participants from all over the world have joined ICRISAT's training programs.

Farmers Days

After the new buildings, labs and hostels were formally inaugurated by Prime Minister Chaudhury Charan Singh in August 1979, we decided it was high time to invite farmers to visit the campus. The first Farmers Day was organized on 4 September 1979. More than 500 farmers from Andhra Pradesh, Maharastra and Karnataka participated.

At 4 o'clock in the morning on 4 September 1979, the phone rang loudly at the campus residence of SK Dasgupta, Head of Visitors Services. Some 50 farmers from Sholapur had arrived in response to our invitation after traveling all night, and they were in no mood to wait until the activities began at 0800! By the time the ICRISAT volunteers assembled at the old FDO area, the number of farmers had swelled to 250. By the time the last visitor left, it was 1730 and we had handled 480 farmers in a single day - a record figure!

The first Farmers Day at Patancheru.

Maharastra Chief Minister VR Deshmukh with Dr Dar on Farmers Day 2001.

Indian farmers examine ICRISAT varieties.

Blind farmers from Tata Rural Trust.

Her Excellency Suman Krishan Kant.

That record didn't last long - it was broken the very next year! Farmers were invited to see the new varieties of sorghum, pearl millet, pigeonpea and groundnut, as well as our watershed experiments. Almost 300 staff served as volunteers. When the last group left, the sun was already setting and a quick tally showed that no less that 1600 farmers had visited - and been fed! - that day.

On the tenth Anniversary of ICRISAT, Farmers Day was even more memorable - 67 blind farmers from the Tata Rural Trust visited. Through touch, they tried to understand the crops they could not see.

Working for Women

Women play a key role in agriculture. ICRISAT takes their role seriously, and makes a special effort to reach out to women farmers.

We always knew that women were crucial to agricultural endeavors in India and Africa, but when we asked government agencies and NGOs to bring some women to our Farmers Days, this simply didn't happen - we only got men farmers. So in 1992, we decided to hold a farmers' days *exclusively tor* women. On Saturday, 12 September 1992, over 800 women farmers from three states - Karnataka, Maharashtra and Andhra Pradesh - traveled in chartered buses from villages up to 700 km away to visit ICRISAT. The day's activities included group discussions during which the farmers identified their most important problems, and specified the areas where they felt ICRISAT could be most helpful.

Three women, one from each language group, spoke on behalf of the group. Each emphasized their appreciation at having been invited. In the past, they said, only the men in their villages attended such functions.

Women farmers at Patancheru...

Her Excellency, Mrs Suman Krishan Kant, wife of the Governor of Andhra Pradesh, was the Chief Guest. Her speech was a shock to every man in the audience. She had often found, she said, that men were drunk and abusive, and not to he trusted. That was her advice to all the women farmers who gathered to listen to her. She spoke in English, hut one can only imagine the plight of the translator, Dr Rama Devi, when she had to say all this in Telugu!

... at Matopos..

Encouraged by the success of the Women Farmers' Day at Patancheru, similar Women Farmers' Days were held for the first time in 1993 in three countries in Africa - Malawi, Zimbabwe and Niger.

... and at Bamako.

Vaudeville with a message

Can there be fire without smoke?
Rains without clouds?
Children without parents?
Harvests without pesticides?

So goes the chorus of a song-and-dance show in Telugu, the language of Andhra Pradesh. This vaudevillian discipline, known as 'Pallesuddulu', is used by farmer activists to communicate the message of integrated pest management (IPM) to rural audiences.

Pallesuddulu traditionally consists of a lead singer accompanied by two comic singers and two drummers. The performers intersperse their singing with riddles, anecdotes, and jokes (frequently 'off color').

Vaudeville at ICRISAT.

The spark plug of this group of entertainers with a message is Sambaraju, who writes the lyrics and composes the music for the performances. Sambaraju brought this form of art to a new level by incorporating themes on science, environment, health care and agriculture. The words and antics of his bawdy performances thus convey important messages to villagers.

ICRISAT entomologist GV Ranga Rao, a Telugu-speaking son of the soil (and a bit of a song-and-dance man himself) attended one of Sambaraju's performances. He immediately realized the possibilities of using the medium to spread the IPM gospel.

He and Sambaraju soon became thick as thieves, and the resultant i ollahoration has been very successful in weaning farmers away from pesticides.

'In the past,' says Ranga Rao, 'if I was lucky, maybe ten or twelve farmers would show up for my boring lectures about IPM. Maybe one or two would actually listen, and the rest would fall asleep. Now I just tell them I'm bringing in a Pallesuddulu troupe and the whole village shows up!'

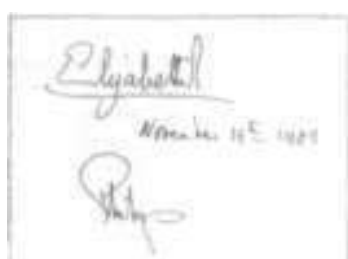
Visitors

A small department called Visitors Services was started in 1974 withDr B Diwakar joining as the first Scientific Liaison Officer. In the first two years of its operation, ICRISAT had 1084 visitors from 37 countries. The number of visitors grew ever larger, soon reaching nearly 10,000 per year. Farmers, students, extension officers, ambassadors, scientists, politicians, ministers and the general public all came to ICRISAT, and they still do.

In 1983 alone, we were visited by Her Majesty Queen Elizabeth II, Prince Philip, and their entourage; President Burnham of Guyana; IH Latif, Governor of Maharashtra; Mrs Eegje Schoo, Minister of Development Cooperation for the Netherlands; and the new CGIAR Chairman designate Mr S Shahid Husain.

The Swindales with her Royal Highness Queen Elizabeth and Prince Philip.

President of India Fakhruddin Ali Ahmed visiting ICRISAT in 1976.



The Royals' signatures in the Guest Book.

General Giap with LD Swindale.

Number One Hunger Fighter Norman Borlaug visits ICRISAT.

Important visitors to ICRISAT-Patancheru

I am proud that USA is associated with this outstanding institute, assisting countries around the world.

John Gunther Dean, US Ambassador to India, 4 July 1986

ICRISAT is a living example of international cooperation at its very best. My best wishes.

Dr Manmohan Singh, Deputy Chairman, Planning Commission of India (later Union Finance Minister), 20 February 1987

Congratulations for your achievement.

General Vo Nguen Giap, Deputy Prime Minister, Vietnam, 20 April 1989

I am glad to visit ICRISAT after several years. It has grown very well since my last visit and its activities have expanded both in substance and coverage. We are all proud of this institute. I compliment all those who are running it so successfully and wish them greater success in the years to come.

PV Narasimha Rao, Prime Minister of India, 29 August 1992

Enjoyed my visit. Looking forward to come back soon. Best wishes.

Mohammed Azharuddin, Captain of the Indian Cricket Team, 6 October 1993

It is wonderful to revisit ICRISAT and see all the progress you have made in improving the agriculture for the dryland tropical areas. Congratulations. Keep up the good work.

Norman Borlaug, Noble Laureate, 5 February 1996

This Institution is serving backward and developing nations all over the world. It is the biggest contribution for human kind. Keep it up.

N Chandra Babu Naidu, Chief Minister of Andhra Pradesh, 7 December 2000

Wonderful visit - demonstrates the value of partnerships, research and action in the field as well as the dedication of ICRISAT staff to small and poor farmers.

Ian Johnson, CGIAR Chairman, 11 Febraury 2001

Very much appreciated the reception and the well conducted visit to the facilities and field trip. The research work is of great benefit to our country. More grease to your elbows, and God bless.

Dr Samuel Dorh Bello, Permanent Secretary, Ministry of Agriculture and Natural Resources, Nigeria, 17 October 2001

Ian Johnson, Chairman, CGIAR, visiting ICRISAT.

Rising to the occasion

ICRISAT has always risen to the occasion when disasters have struck. The staff have done whatever they could to mitigate suffering and accelerate recovery after disaster.

After a devastating cyclone in November 1977, ICRISAT staff contributed Rs 50,000 for relief efforts. In addition, the institute offered its services and expertise, including cooperation with the All-India Rice Improvement Project in producing seedlings of a quick-growing salt-resistant rice at Patancheru. We also offered scientific assistance in determining how soil affected by seawater can best be returned to cultivation. Labor, equipment and materials for ground leveling and clearance were also offered.

In 1997, after a series of cyclones struck the Andhra Pradesh coast, staff and management contributed Rs 150,000 to the Chief Minister's Cyclone Relief Fund.

The relief cheques handed over in 1977 (left) and 1997 (right).

Seeds of Hope

Civil war broke out in Rwanda in 1994 and ravaged the country, destroying its germplasm base of sorghum and other crops. Eight CGIAR centers and five donors launched the Seeds of Hope Project to reintroduce germplasm into Rwanda. The genebank at ICRISAT had 256 Rwandan sorghum landraces, and these were multiplied in Burundi, Kenya, Tanzania, Uganda and Zaire. Seeds of sorghum and other crops were distributed by various NGOs.

A similar project, Seeds of Freedom, was launched in Angola in 1997 after that civil war ended. Six CGIAR Centers, along with several NGOs, were involved in the rebuilding effort. Five improved sorghum and millet varieties were multiplied for distribution in Angola. Angolan staff were trained in research management.

Stan King and the Rwanda rescue mission.

The Latur earthquake

In the early hours 30 September 1993, an earthquake struck Latur district in India's Maharashtra state. Although the epicenter of the quake was over 200 km to the west, virtually everyone in Hyderabad was awakened by the trembling earth. There was no damage in Hyderabad, but 10,000 people had been crushed to death in their homes in Latur. ICRISAT staff set up a collection. In addition, we decided to send seeds to help the farmers get started next season - three pick-up trucks loaded with chickpea seed.

Strategically, the ICRISAT team included several Marathi speakers: CS Pawar, Upendra Ravi and AB Chitnis. Ironically, the survivors were mostly men farmers, because they had been sleeping in their fields to safeguard their nearly-ripe crops. Crops were good in 1993, adding to the bitter irony.

Relief material being distributed in Latur.

Lake ICRISAT overflowing.

The deluge.

Talk about the weather!

Since Hyderabad lies in the heart of the SAT, the weather is by definition erratic. But it's not always drought - sometimes there is far too much rain!

Rainfall in August 1978 was 516 mm, 330% above normal, and the highest amount for a single month since 1901. On 14 August, in just a few hours the water level in Lake ICRISAT rose to flood level and started to overflow. An additional spillway had to be bulldozed to prevent the bund from being washed away. Fields in the old Manmool tank basin were cut off from the rest of the farm. Some fields lay under a sheet of water looking like another lake.

The situation caused much anxiety but little damage, and soon returned to normal. 'We pray for rain, but not of this kind!' said one FDO employee.

August 2000: deluge!

The Patancheru campus recorded an incredible 510 mm of rainfall during the 48 hours from 0830 on 22 August to 0830 on 24 August, a deluge unprecedented in the recorded history of Andhra Pradesh state. For comparison, this was higher than the average *annual* rainfall in many parts the dry tropics - Niamey's annual rainfall, for example, averages 545 mm.

Tragically, this flash flood led to several deaths, which are discussed elsewhere in this book.

Then and now: honorees in 1982 (above) and 2002 (below).

Annual Day - a day to rejoice

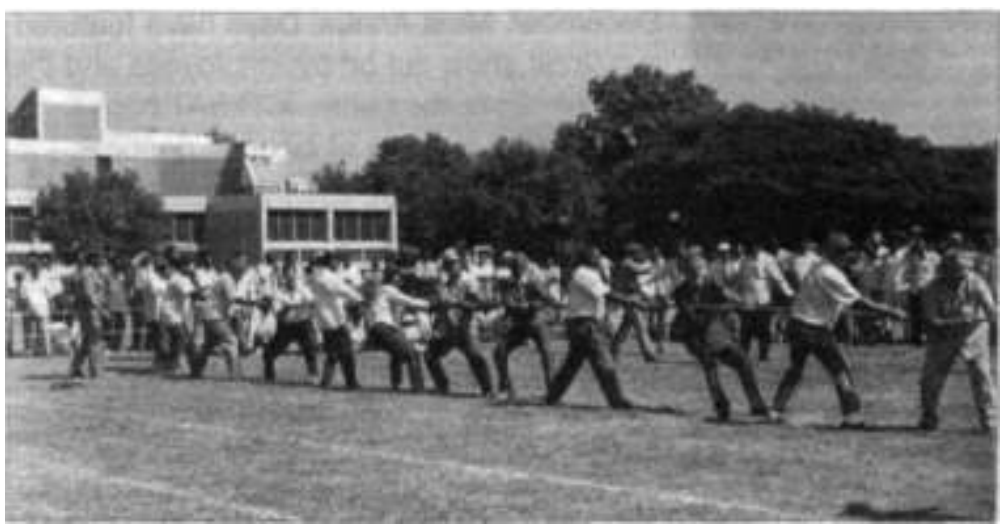
11 October 1982: a red letter day in ICRISAT's history. It was the beginning of a new tradition that has continued every year for two decades - the tradition of honoring staff for their years of service. The honorees are not only those who work at the Patancheru headquarters, but also from ICRISAT locations in Africa and the Delhi Office. In 2002, for the first time ICRISAT will honor 28 employees who have served the Institute for 30 years!

At Patancheru, Annual Day is traditionally celebrated on a Friday in November or December. Most Annual Days have featured a cultural show put on by employees and their families. Over the years, ICRISAT has witnessed a number of singers, dancers, actors and mimes. Participation is not restricted to employees - children participate very enthusiastically, and are often the center of attraction.

Directors General have come and gone, employees have left ICRISAT and others have joined, donor funding has fluctuated... but one thing that has remained resilient through the last two decades is Annual Day.

Annual Day celebrations at ICRISAT-Nairobi.

Group dance by the staff.



Tug of War at Annual Day 1991.

SATrends *launch on Annual Day 2000.*

Recreational and social activities

ICRISAT is not just about work. Over the years the institute has made consistent efforts to improve the living standards and recreational opportunities for staff and their families. The following gives a flavor of these voluntary initiatives.

Recreation club inauguration. Dancers (L to R): Soumitra Mukherjee, Gena Estes, Shauna McGinnis, and Purnima Nene.

ICRISAT Staff Recreation Club

Think big!' advised Director General Ralph Cummings when he heard about proposals for a small ICRISAT Staff Recreation Club (ISRC). The club couldn't have had a more colorful beginning. Its inauguration on 5 March 1977 coincided with the Hindu festival of *Holi,* so staff celebrated its arrival with folk dancing and 'color splashing'.

The club has gone on to play a key role in the social lives of many ICRISAT staff over the years and thanks are in large part due to JC Davies, G Alagarswamy and SK Mukherjee - the prime movers in its establishment.

Something's fishy

Although the ICRISAT Fishing Club was established in the early eighties, its activities didn't start in earnest until 10 years later, when the adoption of a constitution gave the club a focus. The club has contributed to the improvement of facilities at both of our large lakes. The ICRISAT Fishing Club has 130 members drawn from across the echelons of ICRISAT, from RWF staff to the Director General. The club funds its endeavors by harvesting and selling the abundant supply of fish, mostly murrell and tilapia, from Sunset Lake.

Fish haul at Sunset Lake.

Members of the first Cooperative Society.

Opening the creche.

Cooperative Housing Society

The ICRISAT Cooperative Housing Society was set up to help staff to purchase land. It identifies attractive plots and makes bulk purchases at low prices, then develops them with the help of ICRISAT management. Its success prompted the RWF to form their own housing society with the help of Dr Swindale. Through the society, they purchased land in Beeramguda.

ICRISAT Employees Cooperative Welfare Society Limited

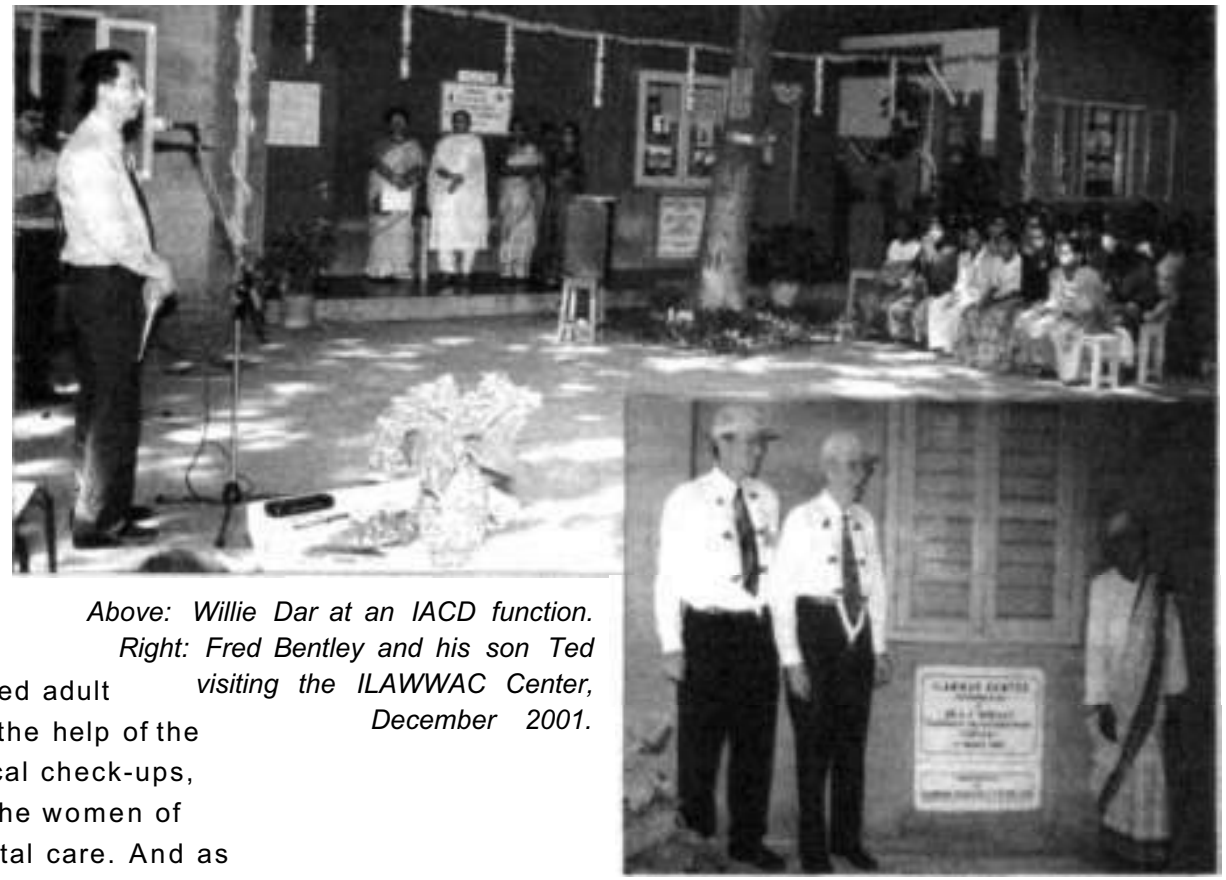
The Cooperative Society, registered in July 1978, has aided employees for over 20 years with financial assistance and thrift schemes, hire-purchase offers on household items and the campus store. In 1990 its hard work was recognized by the Registrar of Cooperative Societies, which judged it the best-run cooperative society that year.

The Creche

In 1976, ICRISAT, in association with the Home Science College of the Andhra Pradesh Agricultural University, founded a creche to care for the children of the RWF. In 1978, when the collaboration contract ended, ICRISAT took over its management. By 1979, the creche had an enrollment of 25 children between the ages of six months and five years. Until its operations were suspended due to lack of demand - the children had grown up! - the creche was open every working day and provided the children with baths, clothing and food. A doctor from the Field Medical Unit also made regular visits.

ILAWWAC and IACD

On 18 September 1980, a group of ladies met at the Staff Club in Banjara Hills and formed the ICRISAT Ladies Association for the Welfare of Women and Children (ILAWWAC). The association's objective was to promote education, training, health care and economic assistance for disadvantaged ICRISAT workers. Standing committees were established for each of these objectives and also for fund raising.



Above: Willie Dar at an IACD function. Right: Fred Bentley and his son Ted visiting the ILAWWAC Center, December 2001.

Then, with typical ICRISAT zeal, the association launched headlong into achieving its ambitious objectives. It upgraded a primary school in Srinivasanagar that lacked even basic essentials like blackboards and books. It provided adult literacy classes for the children's parents. With the help of the Field Medical Unit, ILAWWAC introduced medical check-ups, health education and dental care. They taught the women of Srinivasanagar about family planning and prenatal care. And as if all this wasn't enough, the association also helped establish cottage industries to help women improve their standard of living and establish their independence.

Some of the key players in the establishment of the association were Delle Swindale, Jean Oswalt, Ira Reddy, Meera Bisht, Vanny Laxman Singh, Ratna Kumari Gupta, Sharada Menon, Suman Kapoor, Chandana Dasgupta, Susheela Gowda, Nirmala Nirula, Rita Guglani, Saroj Virmani, Padmini Ambrose, Shalini Shenoi, Geeta Srinivasan and Shobhana Parthasarathy. Thanks goes out to all the other dedicated and enthusiastic members of this association who have not been mentioned here.

In 1994, largely because there were no more children to take care of, the association's focus narrowed, and its name was changed to the ICRISAT Association for Community Development (IACD).

Because of the expatriate orientation of ISH, few students remain enrolled for more than 3-4 years. A notable exception was John McGaw, who completed 12 full academic years (1991 to 2002) at ISH - a record!

An ILAWWAC volunteer's biggest responsibility was fund raising. We'd hold raffles and melas and screen movies to make money for the associations' activities. We concentrated on health care in the village. Once, we took 25 polio-afflicted children to the hospital for treatment. We also conducted eye camps in two villages. We set up a creche for children of the RWF that proved very popular. When numbers dwindled, we used the facilities for adult literacy classes instead. One our biggest successes was the sewing center, which trained thousands of village girls in sewing, embroidery, crochet and knitting. It is still operating today.

Ira Reddy

International School of Hyderabad

ISH has an even longer history than ICRISAT's. It was originally started by a group of Americans on a USAID project in the sixties. It was later taken over by a Canadian project working with CRIDA and became known as the Can Am School.

ISH students performing at Annual Day.

The CanAm School rented a succession of old houses in Banjara Hills and was run by parents and locally recruited teachers. Everyone pitched in to help move furniture and supplies, put up bulletin boards and fix the plumbing when the school moved location. Early ICRISAT members involved with the school included the Estes, Williams, Moss, Peacock, von Oppen, Ryan, Dart and Bidinger families.

By the early 1980s, the number of expatriate families was growing. It was obvious that a more formal school with a broader curriculum was required. In response, ICRISAT obtained permission from the government of

India to set up a school and agreed to provide the services of an expatriate headmaster to run it.

Numbers continued to grow and parents asked ICRISAT to help find a permanent location for the school. Director General Swindale and the staff club agreed to the construction of a new building for this purpose on the property on Road 1, Banjara Hills, adjacent to the City Travel Office and the Staff Club.

The first Headmaster was Neil Patterson, a Briton, who was recruited in 1981. He was followed by Sam Phillips, an American, who joined in 1982.
At this time the school was called the Hyderabad International School (HIS). Peter Reavey, a Briton, succeeded Phillips in 1988. When Reavey left in 1994, the school was left without a principal for a year. During this period, it adopted the name it has today: the International School of Hyderabad (ISH).

CanAm School 1979
1st row: Joel Bidinger, David Nicholaichuk, Yebabe Mengesha.
2nd row: Eileen Lakshman (teacher), Nicola Robinson, Philipp von Oppen, Catriona Dart, Andrew Robinson, Jeroo Parakh (teacher).
3rd row: Priscilla Paul (teacher), Pam Nicholaichuk, Catherine Williams, Fiona Hamilton, Jennifer Kidd, Simon Moss, Sven Sewitz, David Estes.
4th row: Gena Estes, Penny Moss, Rachel Moss, Nolawi Mengesha, Jim Nicholaichuk, Janeen Kidd, Lidet Mengesh, Evelyn Estes (teacher).

Eventually a successor to Reavey was hired. His name was Jon Jasinsky, an Australian national, who arrived in 1995. During Jasinsky's five-year tenure, he energetically improved the learning environment. He initiated a successful campaign for recognition by the European Council of International Schools (ECIS), one of the most prestigious such societies. ISH is the only school in India to achieve full ECIS membership, and it is the smallest member school in the world. ISH has also examination center status for International General Certificate of Secondary Education (ICGSE), and in June 2003 the first ever graduate will complete her secondary education at ISH.

Young athletes showing off their swimming awards at the ICRISAT pool.

In 1998, ICRISAT Director General, Shawki Barghouti agreed to move the Staff Club to the City Parking Place so that the main building at the Road 1 property could be fully dedicated to the school. The school expanded its staff and added facilities like science labs and a library. From an enrollment of only 19 in 1995 the school quickly grew to over 50 students.

Jasinsky also established 'Saturday Sports' during his tenure. This weekly outing to the ICRISAT campus, during which kids learned the fundamentals of football, softball, basketball, hockey and even water polo, quickly became an institution. This activity remains an important part of the school's life to this day.

Jasinsky left in 2000 and was succeeded by a Briton, David Meredith. By now, largely because of ICRISAT's own financial constraints, ISH was surviving on less subsidization from the institute. Meredith only served for one year. His main contribution was the alignment of the school's curriculum with the British system.

Meredith was followed by yet another Briton, Stuart McLay. His style was reminiscent of Jasinsky's in many ways, especially his emphasis on infrastructure and physical education. At this writing he is in his second year at the helm.

Life on the campus.

Campus life

Life on the Patancheru campus has always been enjoyable. Even when the campus was first opened to residents in 1979, with virtually no recreational facilities available and very limited transport access to and from Hyderabad, ICRISAT families found ways of entertaining themselves. They celebrated festivals such as *Holi, Diwali* and *Ganesh Pooja* together and organized social activities like picnics, husbands' nights (when the men prepared food and served it to their wives and children), card evenings and rabbit shooting. They marked Indian Independence Day each year by raising the Tricolor and

holding a children versus parents cricket match. Early residents agree that there was a special sense of camaraderie during those years that has probably never been matched.

Out, damn weed!

Gardening - ICRISAT style

ICRISAT staff and residents have never been ones for airs and graces - which is just as well because when faced with adversity they club together and get their hands dirty!

For some years the Patancheru site has been warring against parthenium - an insidious weed that is not indigenous to India. Ironically, it was introduced into India through American wheat imported under an aid program. The weed has never been a serious problem in the USA, but seems to have adapted perfectly to the Indian environment.

In September 2002, Team ICRISAT fought a valiant battle against the pesky plant. The firing shot came from Director General Dar and his wife Betty, who savagely attacked a clump of weeds in a field on the western side of the campus. The teams then went into action, dispersing far and wide to neutralize the threat. Parthenium lost the day, but we know it will be back. And when it does, we'll all be waiting!

Cultural programs

The first families moved to ICRISAT campus in 1979 and within a year all the houses were occupied. The campus was a constant bustle of activity; many of the families had young children and there were always guests and trainees coming and going.

The Annual Day cultural shows featured performances of dance, drama and song by campus residents. Trainees from across Asia and Africa have also

ICRISAT Memories

ICRISAT meant wide-open spaces, fresh air and clean earth while the rest of Hyderabad seemed to be choking in noise and chaos.

ICRISAT meant carving a place of order out of the huge wild rocks lying across the surrounding countryside.

ICRISAT meant having trashcans, while the rest of Hyderabad threw rubbish into their own backyards.

ICRISAT meant a place where the rules were kept. Where chaos and corruption had to be left at the front gate.

ICRISAT meant holding together, no matter where one was. While other buses honked their horns and sped recklessly through the crowded, unruly traffic of Hyderabad, our drivers were calm and collected, raising their hand in salute as they passed one another.

ICRISAT meant taking pride in the place one lived because it was a place that cared and really made a difference.

ICRISAT meant having a special bird that flew around in the evening dusk, greeting you as you came home from school with its cry of 'IC-RI-SAT.

ICRISAT meant the beautiful ice-cream cone water tank at the front gate beckoning you home.

ICRISAT meant belonging to a place. Even when a man had a terrible accident and lost his leg, ICRISAT still had a job for him as a bore-well attendant.

ICRISAT meant that somewhere in the world more poor children were getting enough to eat.

ICRISAT meant making things work; the lights, the cars, the swimming pool pump and the greenhouses.

ICRISAT meant setting an example.

ICRISAT meant preserving natural resources with understanding and respect.

ICRISAT meant respecting the past and incorporating it into the present - like Manmool castle that was used as a conference room and a grain storage area.

ICRISAT meant being part of a community in which a temple and a mosque stood next to each other.

ICRISAT meant having a safe and secure childhood, in which every day one could learn about doing a job well - from the cooks, the workmen, the scientists and all the rest of the staff bound together by their collective mission.

ICRISAT meant having a childhood full of hope - that one can make things better in a country full of poverty, chaos and resignation.

Nina Bisht

As Nina Bisht says, 'ICRISAT meant being part of a community in which a temple and a mosque stood next to each other.'

Annual day celebrations.

delighted audiences with their colorful national costumes and renditions of traditional songs.

ISRC held a grand gala function in 1982 at Hyderabad's main theatre, Ravindra Bharati. The Swindales were chief guests among an audience of nearly one thousand. The highlight of the extravaganza was a drama involving most of the campus children; enthusiastically directed by Mrs Dasgupta and Lydia Flynn. Vaishali Bisht, who played one of the main parts, has gone on to become an accomplished director of drama herself.

ICRISAT's 10th birthday was celebrated in true style with the introduction of the legendary Annual Day, complete with a cultural performance in the evening. The campus wives got together and presented the 'Brides of India' - a costume show depicting bridal wear from different Indian states.

Mrs SK Dasgupta

***Brides of India - first program by** the residents.*

Fishing club.

Azharuddin bowled over by the Electron Microscope.

Recreational facilities

ICRISAT's recreational facilities rival those anywhere in Hyderabad. The campus has an outdoor swimming pool, a football ground, a cricket pitch, a basketball court, and two tennis courts. Our lakes are not only perfect picnic spots; they provide opportunities for boating and fishing. ICRISAT has established strong, healthy sporting relationships with several neighboring organizations, including BHEL and the Police Academy.

ICRISAT Cricket Club

The gentlemen's glorious game, cricket, has notched up 26 years of history at ICRISAT. The love affair dates back to 1976, when a bunch of administrators and scientists wielded the willow and organized a formal ICRISAT team.

Representing Medak district in 1977 in the first inter-district cricket tournament for the Telangana region, ICRISAT did very well, emerging as runner-up. When the team was admitted into the Hyderabad Cricket Association's F division in 1977/78, it wound up winning the division. In the following years, it shot up to A division, where it remained for nearly 10 years. This is a tremendous achievement for a non-professional team.

Great moments for the team included a visit from Mohammed Azharuddin, Indian cricket team captain, 1993. Other highlights were when YL Chandrasekhar was appointed coach-cum-manager of the Hyderabad under-13 team in 1990, and when DY Giri was appointed Manager for the Hyderabad cricket team.

In the eighties, the ICRISAT Cricket Club started the Inter-departmental Cricket Tournament in which various research units and support programs played a shorter version of the game with great fervor. It also attracted staff from the USA hooked on their own national addiction - baseball. The tournament still continues to attract staff and is played at weekends during November.

Another cricket match that attracts staff attention is the annual festival fixture played between the Andhra Pradesh Chief Secretary's XI and the ICRISAT Director General's XI. It is always a fun occasion, punctuated by light-hearted rivalry. The Swindales, Ryans and Dars have all participated with enthusiasm in these social occasions. Indeed Dr Swindale, an active cricketer himself, had nothing but praise for the club, its performance and its events.

The rapid rise of the club from F Division to A Division in a little over 10 years is a great credit to its devoted players, officials, and supporters. A wonderful thing about the ICRISAT Cricket Club is that it brings together staff members and their families from almost every rank and responsibility throughout the institute. Of equal importance is that the club helps keep the institute's name before the Hyderabad community in a very positive way. I remember those as most pleasant occasions.

The Cricket Club with LD Swindale.

Ryan, who succeeded Swindale (in both the head office and the cricket pitch), shares his sentiments. The ICRISAT cricket team is a reflection of the ICRISAT spirit. The players are drawn from across the institute and include several children of staff. I hope that cricket at ICRISAT will continue to flourish.'

Deepak Jadhav and DY Giri, two of the club's mainstays, say 'All the staff cricketers are very proud to have donned the ICRISAT cap. We would like to thank ICRISAT and all those involved in the club for making the gentlemen's game the most popular sport at ICRISAT'

Girls XI impressing the Veterans.

Girls XI tie with veterans

It is difficult to say whether they bowled a maiden over or were themselves bowled over - but one thing's for sure: the match ended in a tie! It was ideal cricket weather on Saturday, 19 January 1980, when the Veterans XI bravely faced the Girls XI in a festive match on the ICRISAT Center cricket grounds.

The girls, looking every bit the professionals in their spotless whites, won the toss and elected to bat. They scored a mighty 73 for 7 declared. The veterans started badly and lost two quick wickets. But they battled on gallantly against 13 opponents - 11 players plus two chivalrous umpires! The leading lights were D Sharma, Shyam Nigam, and Tetsuo Matsumoto with his inimitable baseball-style batting. Some said it was chivalry, others called it fear of reprisal - but whatever the truth, at 73 for 7 they too declared.

Dussera at FES.

Dussera celebrations at ICRISAT

Dussera, which falls in October every year, is an important Hindu festival honoring Durga, the goddess of learning. ICRISAT staff at Patancheru celebrate on a grand scale, with every department putting its own spin on the festivities. The Transport Unit decorates their vehicles, Computer Services (now the Information Systems Unit) performs *pooja* on their machines, research programs celebrate in their labs, and so on. The grand finale, traditionally attended by senior management, takes place at the Farm and Engineering Services workshop, where the area is garlanded with flowers and blessed.

The Hyderabad Hash House Harriers.

The Hash House Harriers

A Hyderabad chapter of the Hash House Harriers, the light-hearted worldwide 'drinking club with a running problem', was founded by Eric McCaw, then a Research Editor with Information Services, on 18 February 1990. The first run started from the McGaw residence on Road 54 in Jubilee Hills. Most of those attending Run No. 1 were ICRISAT employees or dependents - including Lydia Flynn, who is still running. Eventually the club attracted many others, both locals and expatriates, who liked the idea of a cross-country jaunt through the bizarre rocks and fantastic landscape that typifies the Deccan Plateau.

The Hyderabad Hash was unique in that it brought together people who might otherwise never have met. The Patancheru campus became a particularly favored site with its danger-free roads and a swimming pool to cool off in. Over the years, several special 'bicycle Hashes' were organized by PSD's loseph Banji, another veteran of Run No. 1.

Present and former ICRISAT staff and families who participated in the weekly fun runs are too numerous to mention, but some were particularly devoted. These included Sarwat and Vidya Hussain, Jim and Evie Estes, Pat Bidinger, Bjorn Seeling, Bob and Liz Eaglesfield, Sue and Don Byth, Hanneke Bueil, John Kerr, Tom Walker, Sue Hainsworth, Bob and Margaret Myers, Kwame and Ama Akuffo-Akoto, and the Butler, Horn, Peacock, Witcombe, Wightman, Lee, Anders, Silim, Winslow and Hash families.

It is worth mentioning that former Board Chair Fred Bentley, while visiting ICRISAT on the occasion of Annual Day 2001, attended a Hash run at the Patancheru campus with his son Ted and became the club's most venerable participant at the ripe age of 88. And he didn't just sit and wait for the pack to return from the run - he completed the entire trail and quaffed his share of the club's 'training beverage'at the circle!

HHHH has not missed a single weekly run since its inception, and has completed nearly 700 of them.

The High Rangers: racing to the top

Patancheru campus doesn't monopolize all the fun. Each ICRISAT location has developed ways of keeping its staff amused - however tough the conditions. The High Rangers of Matopos are a case in point.

It is a hot Saturday afternoon and everyone is gathered round. A few women spread their blankets and open up for business selling popcorn, chips and sweets. The sparse grass has lieen cut and the lines drawn with a stick. The dust is settling behind the bus that just arrived, the uniforms shine brightly and the whistle is blown. It is a home game for the Matopos High Rangers Football Club, comprised of players from ICRISAT and the government research station.

The team has always been good, but in 2002 they were unstoppable, not losing a single game - an accomplishment for which the women gathered to watch deserve partial credit. They are by far the loudest supporters, and even though their songs and shouts are in Ndebele, the agony and frustration on the opposing team's faces illustrate all too well what they mean. The nets in the goals are torn, and it is sometimes difficult to judge if a team has scored. However, the cheers or shouts of disappointment that follow the ball usually settle any uncertainty!

The High Rangers club was formed in 1973 by young workers at the research station and the club started playing competitively in 1982. The Matopos stadium, nicknamed Mtshaye asafe *('hit him hard until he dies') is in the center of the community. Three evenings a week the players gather for practice. During the day they are janitors, scientific officers, drivers and salaried casual workers. But come the close of work, they discard their daytime designations to become the scourge of Matabeleland!*

Maintaining the team is expensive, so the High Rangers undertake fundraising activities to cover costs for referees, transport to games, uniforms, and so on. The team supplies stocks to a store in Matopos, and the money raised is used to finance the club. This helps ICRISAT to support an activity that benefits not only the individual players but the whole community. What else would one do on a Saturday afternoon in Matopos than watch the High Rangers hit the other team hard - real hard!

Ylva Besmer, *on behalf of the Matopos High Rangers Football Club*

Service is our motto

Transport

As ICRISAT has grown so has the need for bigger, better transport services. Without the skill and dedication of the Transport Unit the institute would be subject to the same chaos that rules outside the campus!

From the five buses ICRISAT laid on in the initial years, our fleet has grown to over 100 vehicles ranging from buses to motorcycles. The reputation of our transport service is so good that residents claim you can set your watch by the passing of an ICRISAT bus. ICRISAT drivers are famous for their disciplined, careful driving, and safe driving awards are presented annually. The Hyderabad traffic police judge ICRISAT's fleet to be one of the best in the city because of its low frequency of breakdowns and accidents.

As Dr Swindale was fond of saying, ICRISAT drivers are our ambassadors, since they are often the first to meet a visitor to the institute and the last to say goodbye. And we are proud to say they never let us down!

Inauguration of new buses.

Security

Security has always been a major issue for ICRISAT In the early days the campus was subject to so much theft that management considered erecting observation posts around the perimeter or electrifying the fence. In the end ICRISAT reduced the crime rate by recruiting excellent security staff and improving its relations with neighboring villages.

ICRISAT recruits personnel from the defense services instead of local firms, and the unit has become one of the strongest, most efficient of all ICRISAT departments. Its staff engage in a range of activities, from enacting crime prevention measures to advising management on law and order issues such as

The first security guards.

The first main-frame computers - with some very young operators!

bandhs and roadblocks. Our staff and the policies they enact are so efficient that the unit has contractec from a high of 250 guards in the 1980s to 45 today.

Every year the Security Unit hosted a grand evening of cultural entertainment called *Badakhana.* Guests from all ranks of ICRISAT staff were welcomed with a toast to the institute and then treated to an array of performances by members of the unit. Major KK Sood, Chief of Security until 2002, was the anchor for the occasion, which he adapted from the traditions of the Indian Army.

Computer Services

ICRISAT made its first moves into the digital age in 1975 with the help of Jerry Warren, a biometrician from the University of New Hampshire who identified the Digital Equipment Corporation PDP-11/45 timesharing system as the best suited to ICRISAT's needs. The system was ordered from the US and finally arrived in Bombay that December. The journey from America proved to be the easy part, however. To everyone's dismay, it was discovered that Indian Airlines had no planes large enough to transport the system - only the second of its kind in India - to Hyderabad. Instead, an ICRISAT lorry was dispatched in a painstakingly slow operation that took five days. But still the problems weren't over. The question of the capacity of ICRISAT's war-surplus crane to lift the massive system up to the first floor balcony took *another five* days to decide, until finally desperation won over and it was carefully lifted, box by box, to the first floor.

In 1976, the computer team, led by Jim Estes, began developing the statistical analysis programs that formed the basis of CRISP, the Crops Research

Integrated Statistical Package, that became the mainstay of data analysis at ICRISAT for nearly 10 years. At the same time, the team instructed scientists on how to enter and analyze their data using the system's archaic typewriter-like terminals.

The capacity of the computer system doubled within one year, much to the dismay of Dr Cummings, who had been assured that it would be adequate for at least three, and usage continued to grow.

Computer Services was directed to move to Patancheru as soon as its part of the administrative building was ready. The move took place in December 1978 and Computer Services claimed the unenviable accolade of being the first department to occupy the new buildings at Patancheru. They didn't have to worry about being lonely for they had a horde of furry friends to keep them company - there were rats everywhere! And they seemed especially keen on eating the plastic control cables inside the computer terminals. Unfortunately, the Personnel Division claimed there was no room in their budget to hire a resident cat but instead provided the suffering department with some large and powerful traps!

The computer user area boasted a grand total of six paper terminals in 1976!

ICRISAT joins the IT Superhighway

After much discussion between ICRISAT and CGNET Services (USA), ICRISAT decided to join the Integrated Voice Data Network (IVDN) of the CGIAR. Not only would ICRISAT enjoy the obvious benefits of transmitting and accessing email and data at much faster rates than ever before, but phone calls to other CGIAR Centers would be at no extra cost, phone calls to other countries would be at US rates (far less than Indian rates at the time), and most importantly, ICRISAT would finally have access to the Internet!

YL Nene inaugurating the IVDN tower.

A 60m tower topped by a microwave dish antenna was commissioned at Patancheru. The tower attracted much attention during construction, and much speculation from the Safety Committee as they craned their necks ever further back to see the top. At the same time there was much activity on the ground - the telephone network was connected to a central router, computers and network cabling were enhanced, and Internet browsers were installed.

After almost a year of non-stop preparation coordinated by Lydia Flynn the IVDN was inaugurated on 17 May 1996 by YL Nene, Deputy Director General, who broke the traditional coconut at the base of the tower, C Renard who made the first IVDN telephone call, and Don Byth who opened the first internet page.

Field Medical Unit

Scientific research is a risky business. ICRISAT's agricultural research means that much staff time is spent outdoors on the farm, which brings with it the potential for injuries of many kinds.

One of the most common - and most dangerous injury - is the dreaded snakebite. Nowadays the Field Medical Unit (FMU) has a resident doctor and nursing staff available 24 hours a day for medical assistance, but in the early years anyone bitten by a snake had to be rushed to the Patancheru Rural Health Center where we kept a store of antidote.

Apart from handling emergencies, the FMU provided a reassuring array of services for the entire ICRISAT team, including annual medical examinations and a hospitalization scheme for ill employees. Additionally, it provided secondary care for the childcare center and the IACD, with whom it conducted medical camps in local villages.

Delhi Office

Often overlooked, never undervalued, ICRISAT's Delhi Office was established at the same time as the Patancheru campus. Essentially, the Delhi Office is the bureaucratic arm of ICRISAT's Indian operations and was opened in the capital in order to be close to the seat of the Indian government, and also to the various embassies where visas could be obtained for foreign travel. Initially, ICRISAT's main priority was to register its status as a privileged organization under the UN Privileges and Immunities Act. To do this, it needed an array of endorsements and notifications. Once those tasks had been accomplished, ICRISAT was able to recruit staff from all over the world without having to worry about visa problems, import limitations, and so on.

After spending 29 years at Golf Links in New Delhi, ICRISAT agreed to move into the campus of the National Agricultural Science Centre, along with its sister centers based in Delhi. The new office was inaugurated in April 2001.

Nowadays, the Delhi office remains an integral component in the efficient running of ICRISAT. It is responsible for all government approvals, liaison with diplomatic and consular offices, interaction with donor agencies and informing local media about ICRISAT activities. It also provides practical, friendly support to those traveling into and across India.

Dr Paroda inaugurates the Delhi Office as Dr Dar and PM Menon look on.

Police Jurisdiction over ICRISAT Center

It was not until a motorcyclist was fatally injured in a collision with a pickup truck on site that ICRISAT discovered which district had jurisdiction over the campus. The exact location of the accident - the intersection between the red and black soil areas - also turned out to be the boundary between two districts, Ramchandrapuram and Patancheru. Both police forces hesitated over registering the case, so ICRISAT approached the relevant local authorities to clear up the matter. They decided to place the campus under the authority of the Ramchandrapuram district and all police matters are now dealt with there.

A warrior in granite.

Vaishnavite temple - oldest structure on site.

Pot-pouri

Who said science was dull? Over the next few pages we recount some of the incidents and stories that have colored ICRISATs first 30 years.

Center of history

During the development of ICRISAT's Patancheru headquarters, workers unearthed many relics testifying to the rich social and cultural history of the campus area.

The first major discovery was made during a routine road-laying operation on ICRISAT research farm in 1973. A protruding stone turned out to be a five-ton statue of Ganesh, the Hindu elephant-headed god, that dated back over a thousand years. Hindus traditionally worship Ganesh, the god of infinite wisdom and learning, before they embark upon any new venture, so the discovery of the statue heralded an auspicious future for ICRISAT.

As a result of this discovery, Director General Ralph Cummings encouraged a series of excavation projects that resulted in the discovery of the many artifacts on display around the ICRISAT campus today.

Black granite pre-Aryan Nandi bull.

With the discovery of Neolithic tools on the campus grounds, archaeologists realized that the Patancheru area had been populated for earlier than they had supposed - a fact further confirmed by documentary evidence that a megalithic complex similar to Stonehenge once existed in the Patancheru area.

Patancheru was a center of religious importance at various times - Buddhist, Jain and Hindu - until internecine wars ravaged the area. The late seventeenth century Mughal conquest of the Deccan Plateau wrought havoc on the region and led to the destruction of many Hindu places of worship. The discovery of innumerable broken images indicated the existence of several great temples within three or four kilometers of the institute.

The boundaries of the ICRISAT campus, as has been stated elsewhere, encompass the sites of two former villages, Kachireddipalli and Manmool. Manmool is the most significant archaeological area of the farm. The village appears in Hindu legends as 'Mandagola'.

The ICRISAT Guest House

Sometimes a building has been the backdrop to so much that it becomes integral to the collective consciousness of an organization. The ICRISAT Guest House was such a place and it was with much sadness that the place was finally closed in October 1994.

The Guest House was the site of ICRISAT's first office. It was also the first port of call for many internationally recruited staff who stayed there during interviews and while they searched for long-term accommodation. It was a welcoming, relaxing place, thanks to the beatific presence of MN Enoch, a man whose name was synonymous with the place for 21 years.

ICRISAT Guest House staff. Enoch with tie.

The cook from the dhaba

We recruit our staff from far and wide but also from our very own doorstep - or to be precise, from opposite our main gate. In 1979, a decision was taken to open a canteen at the swimming pool for campus residents. But a week before the inaugural lunch was to take place, a cook was yet to be found.

It came to the attention of the Personnel Unit that the *dhaba* (roadside eatery) opposite the campus main gate had been satisfying staff since 1974, so the *dhabawala* was invited to join the team of cooks for the inaugural lunch. His preparations went down so well that when a permanent catering position became available he was invited to apply. His application required an address for official correspondence, so he wrote 'Care of Main Gate, ICRISAT'. Since there was no question of his offer getting lost in the post, he was duly appointe ICRISAT's new assistant chef!

Beards forever!

Rabid Abid

There are some characters who have helped weave the tapestry of ICRISAT's past. Old-timers cannot forget two such men - the late Abid (some called him *Rabid)* Ali Khan of FDC a seasoned joker, and the late security supervisor Mr Gill, who was distinguished for the frankness of his tongue and the portliness of 1 paunch. One day, on the way home in his pick up, Abid was intercepted at the main gate by Gill. He requested a lift up to Chandanagar, to which an indignant Abid replied, 'I do not give lifts to pregnant Sardarjis!'

Bearded ones, unite!

ICRISAT staff take their work seriously, and perhaps none more so than the men of the Beards International Syndicate (BIS), a group intent on stamping out the evils of shaving.

Conceived in 1980 by two bearded beauties, JP Moss and AK Sadasivan, the association quickly attracted almost 40 members to the cause. Initial meetings highlighted the unrealized potential of men who escaped from the shackles of their morning shave. P Remanandan argued convincingly that 86,400 million man-hours a year could be saved if the 1.8 billion potential beard growers of the world stopped shaving. If all those rescued hours were utilized for the improvement of the SAT, ICRISAT's mission would be complete! Inspired by the need to save ICRISAT's men from wasting their time in an activity that was detrimental to their appearance anyway, OP Rupela proposed a C3N formula (C=Caste, C=Creed, C=Category, N=Nationality no bar) for the association.

The reappearing RWF

As is apparent from the picture of the 30-year Honorees, many of our Regular Work Force employees have been with us for almost the entire lifetime of the institute. Although Narayana Goud did not join in 1972, he has been steadfast enough to have served under, and to be photographed with, most of the Directors General of ICRISAT since he joined.

Anti-clockwise from top, watch Goud's grin grow!

Kofi Debrah: a modern Odysseus

The vagaries of air travel in West Africa have resulted in many tall tales over the years. But this story of one ICRISAT employee's attempts to complete a simple journey has to top them all.

At 2130 on 4 September 1994, Kofi Debrah, Principal Scientist and ICRISAT's Country Representative in Mali, hoarded an airplane in Bamako, Mali, innocently expecting to arrive at his destination - Niamey, Niger - a mere 90 minutes thereafter.

As the plane approached Niamey, however, the pilot announced that a sudden storm had made landing impossible. So he turned the plane around and flew to Ouagadougou, Burkina Faso, instead. While awaiting clearance from Niamey, Kofi and his fellow passengers were treated to an enthralling tour of an Ethiopian Airlines fuselage. At 0330 the next morning, since the weather had still not improved, the pilot decided to forget about Niamey and fly on to the next scheduled stop - N'Djamena, Chad.

In N'Djamena, Ethiopian Airlines magnanimously accepted responsibility for failing to transport Kofi to his desired destination and issued him a new ticket. This got him to Niamey by the most straightforward routing possible: N'Djamena to Douala (Cameroon), Douala to Cotonou (Benin), Cotonou to Abidjan (Cote d'Ivoire), Abidjan back to Cotonou, Cotonou to Lome (Togo) and finally from Lome to Niamey.

The result for our hero? A $26^{1}/_{2}$-hour tour of West Africa with 10 takeoffs and 10 landings – and all at no extra charge!

Consumer acceptance - the hard way

In Uganda, exploratory chickpea trials conducted by ICRISAT/SWRARP (South West Region Agricultural Rehabilitation Project) almost turned nasty for one staff member. During a routine house-to-house search for arms, Government security forces found some chickpea seed in the unidentified man's house. Suspecting the unfamiliar seeds to be drug pellets, and ignoring his protestations that they were seeds of a new crop, they took the culprit to the police station.

Facing a lengthy prison term, he remembered the chickpea he had sown in his garden. Returning to the 'scene of the crime' with a police escort, he plucked a few mature pods and offered them to the security personnel to sample. They were so taken with the fine taste that they picked the rest of the crop and released him!

Sheldrake book kicks up a fuss

When Rupert Sheldrake - a high-flying young biologist with impeccable academic credentials - left ICRISAT's principal staff in 1978, it was to sort out some rather radical ideas about how living things grow and develop. In an ashram on the banks of the Cauvery River in South India, his ideas crystallized over a period of 18 months into a theory of 'formative causation' and were set forth in a book he called *A New Science of Life.*

Dr Sheldrake postulated a new, immaterial force of nature that does not involve matter or energy. His theory contradicted the mechanistic faith of traditional science by denying that everything can be reduced to physics and chemistry. He held that the embryos of living things, from the simplest cell to the most complex organism, tune into a 'morphogenetic field' operated across space and time by a force he called 'morphic resonance', and then develop according to the patterns transmitted to them by others of their species.

Rupert Sheldrake (left).

ICRISAT's crossbar exchange

The ICRISAT trainees' Christmas float.

Sheldrake's book created a furor. *Nature* magazine called it an 'infuriating tract' and 'fit for burning'. The *New Scientist* defended it, saying the author had offered a challenging theory that should be tested before being dismissed. Several organizations offered cash prizes for the verification of his hypotheses.

Sheldrake, who returned to ICRISAT every year as a consultant physiologist in the pulses program, remained confident that his theory would survive any test. Meanwhile, the debate continues to rage, and sales of his book are brisk in both Europe and the USA.

Biggest crossbar exchange In India

When the Ericsson PABX system (comprised of a staggering 540 extension lines) was inaugurated by the General Manager of Telecommunications, Andhra Pradesh, at ICRISAT Center in August 1978, it was the biggest crossbar exchange in India.

ICRISAT on parade

ICRISAT took part in the Republic Day parade on 26 January 1980. Our float, put together by trainees, depicted the religious significance of Christmas with a model of the nativity scene as well as the present-day symbols of the festival - Santa Claus surrounded by elves and the traditional Christmas tree. It was part of the 'Festivals of India' exhibit.

Mary Cummings commemorated

In a simple ceremony of dedication, the memory of Mary P Cummings was honored by naming the park that bears her name on 18 September 1990. Members of the Cummings family, the Governing Board, the Management Committee and ICRISAT Center staff were all present. Ralph Cummings unveiled the plaque and his daughter Mary Ann Hardee planted a Champa tree in her mother's memory. Speakers recalled Mary Cummings' warm personality and her indefatigable support of staff and their families during the institute's early years. Appropriately, the park is a perfect place for relaxation and quiet reflection next to the campus lake. It is within easy walking distance of the front lobby. Over the last couple of years, at the behest of the Director General, Dr Dar, the park has been upgraded to include landscaped lawns, a gazebo, toilets and fishing facilities. Social events are now held there regularly.

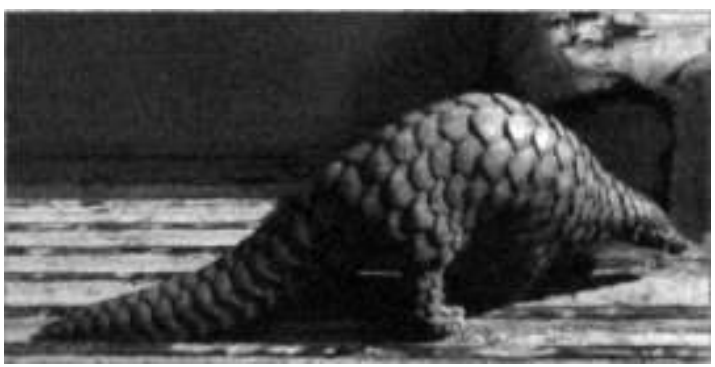
Mary Cummings Park. L to R: Delle Swindale, Ralph Cummings, Walter Cummings, Mary Ann Hardee, Bill Mashler, Ralph Cummings Jr and LD Swindale.

The Mayor of Manmool

When ICRISAT was in its infancy at Patancheru and its permanent buildings were still under construction, its operations were conducted out of old buildings in Manmool village. With such a hive of activity taking place around the small, old settlement it became harder and harder to keep the area clean and orderly. The program leader for legumes, John Green, was voted Mayor of Manmool to oversee the maintenance and upkeep of the area.

John Green, the Mayor of Manmool.

SN Nigam visits the temple.



The pangolin.

One of the most important ventures initiated during his term of office was the renovation of the temple and mosque. Once this work was completed, Muslim employees were able to perform Namaz at the mosque on Fridays, while on Tuesdays Hindu staff performed pooja at the temple. To this day, these sacred places are well maintained and revered by staff.

A few years later, Shyam Nigam took the lead in renovating another old and dilapidated temple located near the cattle shed. With the help of volunteers from the groundnut breeding department, he restored the temple and the surrounding area and *poojas* are now regularly performed there on festival days.

ICRISAT is proud to have restored local areas of historical value over the past 30 years.

Would you believe it?

One of the world's rarest creatures, a pangolin (a large anteater) was caught by security staff at ICRISAT center. They handed it over to Hyderabad's Nehru Zoological Park for display.

For those of you unfamiliar with the pangolin, it is described by Webster's International Dictionary as a mammal with a body covered in large, flat, reddish brown, horny scales. It feeds chiefly on ants and resembles American anteaters in structure and habits.

Operation wild boar

Over the years pigs and wild boars have caused extensive damage to experimental crops on the farm. At times, security has been forced to take the matter in hand and hunt down the offending animals.

In the early hours of 1 March 1992, 26 security personnel, under the supervision of RN Raju, Senior Security Supervisor, set off on one such adventure. After four

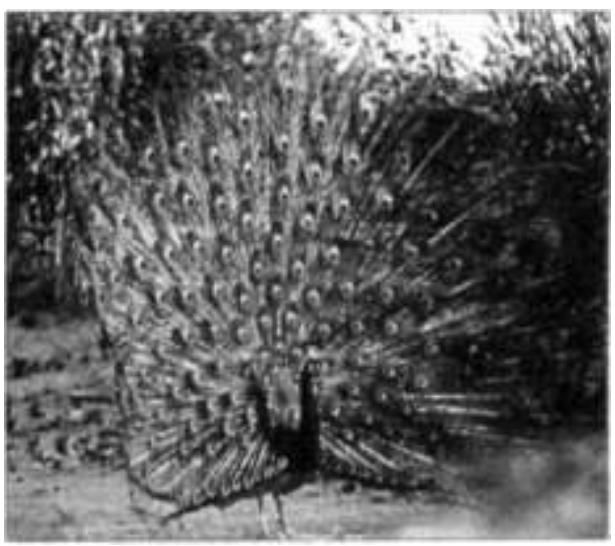
hot hours of hide-and-seek, the exhausted gang of guards finally managed to overpower a 100 kg adult boar. One guard was bitten, two others suffered injuries and several iron rods were bent in the process. Incredibly, the officers used no firearms, and had to beat the beast to death with *lathi* sticks!

Commending Major KK Sood and his staff, Director General Ryan asked him to 'convey to your colleagues my personal thanks. Their vigilance and service is an example to all of us.'

Wildlife on campus

For those who take their time to look (and often for those who don't!) the campus is an animal lover's paradise. The farm is home to wild boar, peacock, rabbit, deer, jackal, hyena, fox, snakes, porcupines and anteaters.

The campus is especially renowned for its ornithological delights. The peacocks are



A Patancheru peacock in all its glory.

The hunting party.

Waterfowl at Lake ICRISAT.

many people's favorites. The Andhra Pradesh Bird Watcher's Association makes a special pilgrimage to the site each year to observe the influx of migratory birds. During one outing they counted 72 species in three hours: brahmini duck, painted stork, moorhen, cormorant and dozens of others. The ICRISAT staff has included many keen bird-watchers. Tom Hash is one keen enthusiast, and his superb photographs of birds and other fauna are featured on the ICRISAT screen saver.

Film shooting on campus

There was a time when every Sunday or holiday ICRISAT campus would be host to some or other member of the Indian glitterati. Attracted by the campus' rolling greenery and peacefulness, many Hindi and Telugu filmmakers chose ICRISAT as a setting for their movies. The money ICRISAT made from hiring out its property was turned over to ILAWWAC, and later to IACD.

Following the development of Ramoji Film City in the outskirts of Hyderabad, the number of films made at ICRISAT has dwindled. But although the campus' heyday as a film set may be over, an occasional clapperboard can still be heard across the breeze.

American vs British English

Many people are surprised that ICRISAT uses American spelling and usage rather than the British version. India is of course much more comfortable with British English, so why the American stance? The answer is probably because our first Director, Ralph Cummings, was American. But he left in 1977 and the two succeeding Directors General, Drs Swindale and Ryan, were both reared in countries that use British spelling. So one does wonder.

In 1991, at a party at the residence of Sam Ambrose, John Montieth, the Resource Management Program Director and an erudite Scot, was holding forth about the advantages of British English. After all, a new DG had just arrived from Australia and surely he would agree. The idea seemed to be gathering steam, but Yash Nene, the DDG, put an end to it.

'No!' said he. 'It's taken me 20 years to get used to American spelling and I'm too old to change again!'

American English remains.

One of the more memorable characters to work at ICRISAT was Merle Anders, an agronomist and self-declared 'Iowa farm boy'. Merle seemed to attract bizarre situations.

One Saturday night, while Merle was tipping back a few beers with an Indian friend at his house in Jubilee Hills, his young daughter Emma came out of the bathroom saying that 'something was in there.' Merle took a look but could see nothing. After another beer or two, however, he needed to visit the bathroom himself. Flicking on the light he was aghast to note a large snake emerging from the toilet basin! The snake was as startled as Merle and plunged back down into the pipe from whence it had come.

Merle (being a scientist) reasoned that as an air breather, the serpent was bound to reappear. He and his friend turned off the lights, left the door to the bathroom open, and waited. They didn't have to wait long. The snake once again emerged, suspiciously tasting the air. At one point half the creature was out of the basin, the other half in. Noting that the front end was in, our heroes pounced, slamming the toilet seat down on its back. A wild thrashing ensued as the snake tried to free itself. Gradually Merle pulled the snake out, being sure to keep pressure on the lid. Finally he had its head in his grasp, and while he held it, his buddy dispatched it with a kitchen knife. Mede then sought his field guide of Indian reptiles and discovered that they had killed a harmless python!

Merle didn't like night watchmen or guard dogs, regarding both as useless. One night his wife Cathy woke him up. There was someone in the house! Merle got up to check. Sure enough, a band of thieves had broken into the house. They had stacked up Merle's stereo and several other items and were preparing to decamp with their heist when Merle appeared. One of them had a knife! Merle used his round dining table as a shield, but the dacoit leapt across and cut his belly, whereupon Merle retreated to the bedroom. The thieves panicked and ran off in such a hurry they left their shoes behind. Merle's injury wasn't serious, but as a result of the incident, ICRISAT decided it would finance 50% of an averane watchman's salary for all IRS, a provision that still exists.

The inimitable Merle Anders.

- ***Eric McGaw***

Tragedy at ICRISAT

In August 2000, Andhra Pradesh was subjected to spectacularly heavy rains. This flooding led to the most tragic episode in the institute's history. As a result of the rains, the low-lying area known as the Manmool Basin was awash with water. The drain separating it from the rest of the farm was flowing five feet above the high water mark. One afternoon, eight temporary *farm laborers (Tf'Ls) were left stranded across the drain, sparking oft a tescue operation. A tractor, bravely driven across the torrent by Mohammed Ghousuddin, successfully readied them, but on the way back five women and the vehicle were washed away. Only Mr Chousuddin and three laborers (one man and two women) survived. The following morning an Indian Air force helicopter rescued the four stranded Survivors. With great sadness, ICRISAT compensated the bereaved families, fully aware that money is no substitute lot a loved one. In the aitermath of this sad episode, ICRISAT constituted a Disaster Management learn under the leadership of Assistant Director General S Parthasarathy to avoid such calamities.*

In 2002, however, another TFL laborer was killed when her sari became entangled in a seed thresher. That incident highlighted the need for regular training of casual staff.

Accidents and unrest at ICRISAT

Thankfully, the Patancheru campus has seen far fewer accidents than the number of years it has existed. To safeguard the security of ICRISAT's staff and property, the institute has a Safety Committee, charged with formulating and enforcing safety regulations on the campus.

Despite the institute's best efforts, however, some unfortunate accidents have occurred over the years. In 1975, when ICRISAT still hired commercial buses to transport its staff to and from the site, one such bus full of ICRISAT workers had a head-on collision with another bus in the Kukatpalli area. Several seriously injured staff were rushed to the local hospital in Sanatnagar where they were given prompt, efficient medical care that saved their lives. This potential tragedy prompted ICRISAT to buy its own buses and train its own drivers.

Seduced by the comparative safety of the ICRISAT campus, some people have driven recklessly and made fatal mistakes. In 1977, a staff member died on the farm premises when the motorcycle he was riding was hit by a pick-up truck. In response to this, the institute set a maximum speed limit of 40 kph throughout the farm and installed signs indicating danger spots.

Comic relief

Not all accidents ended sadly. A humorous incident occurred one evening when a senior scientist, who shall remain nameless, drove into campus lake after failing to realize there was a turning in the road. Fortunately, neither the scientist nor the vehicle, which was later lifted out of the lake with the crane, were damaged, although the former's dignity was somewhat impaired. Later, a wall was erected and covered in reflective paint to prevent further mishaps.

Even these precautions have not prevented further accidents, however. One particularly heartbreaking incident occurred when a construction worker's baby, left asleep under a gunny sack, was run over and killed by a pick-up truck. There are now restrictions on bringing children to work. On another occasion, an RWF employee had to have one leg amputated after he fell off the tractor he was riding back to a workshop and was crushed under a bulldozer at the Manmool causeway.

Unrest at ICRISAT-Patancheru

ICRISAT has always tried to provide an open, participatory and caring atmosphere for its staff and workers. Although the Indian government has extended certain privileges to ICRISAT in accordance with the United Nations Privileges and Immunities Act, such as immunity from labor law, the institute has always been careful to adhere to the requirements of local law and, above all, to provide its staff and workers with fair terms of employment.

Nonetheless, four times over the past 30 years (in 1974, 1979, 1983 and 1995) various influences have led to worker disruption. In 1974, temporary farm workers demanded regular employment. The issue was resolved by providing regular status of employment for those who were needed on a regular basis. These employees were grouped together as the Regular Work Force and allotted certain terms of employment. To try to avert further incidences of unrest, a Workers' Council was convened with representatives from both the rank-and-file and management.

Over the years, one of the chief bones of contention has been over the perceived difference in the way internationally recruited staff (IRS) and nationally recruited staff (NRS) are treated. At times,

Workers Council.

The first Staff Council.

Not ail news is good news!

ICAR abdicates responsibilities

Continued from Front Page

Govt rejects demand for probe into ICRISAT

Hindustan Times Correspondent

especially in the early eighties, national staff felt particularly aggrieved, especially when they found themselves passed over in favor of international staff with lesser credentials. Their frustration was exacerbated by the lack of proper communication channels between staff and management. Matters came to a head in 1983, when staff unrest, triggered by the termination of a probationary staff member's contract, forced the closure of the institute for 15 days. Some staff who tried to come to work were manhandled and some institute property was damaged. An inquiry followed in which 32 staff were suspended. Some of them were later reinstated; others were fired.

The creation of a Staff Council helped smooth relations. The current Staff Council has worked smoothly for the last few years and has been able to resolve most of the staff grievances.

Leslie D Swindale, *Director General Emeritus*

There are many stories that could be told about the nearly 15 years spent at ICRISAT - good news and bad, happy moments and sad times. I have chosen to relate two. The first is a story of crisis management with a happy ending from my earliest days at ICRISAT; a tale that few people in the institute were aware of. The second contains excerpts from a poem, *Hiaswindale's Farewell,* written by Sue Hainsworth in 1991 when Mrs Swindale and I took leave of the institute.

Not long after I became Director General, the Governing Board asked me to solve some serious problems affecting the construction of the institute buildings. Several issues meant that the project had not only been delayed but looked impossible to complete for the prices agreed with the contractors. The eight contractors chosen by the board were threatening to walk off the job unless substantial changes were made in the piece rates and timetable. Luckily, the Board was willing to acknowledge that there was some justification in the contractors' complaints. In a secret session they decided on the amount of money I could use for negotiations. And so, in April 1977, just weeks after taking over, the game began.

I was new to India and no idea about the peculiarities of its major contractors. Over the next six months, in addition to learning about my new responsibilities, I traveled several times to Bombay, Delhi and Bangalore to meet with the main contractors, the architects and the Union Government to smooth over the problems. My almost constant companion was Mr Suresh K Saghal, ICRISAT's Principal Administrator at the time. He was a wonderful advisor and friend who taught me how much I had to learn. I was also assisted by Mr N Rajamani and

Drs Delle and Leslie Swindale.

LD Swindale.

his staff from the Delhi office and Mr Navin Shah, the ICRISAT Construction Project Manager.

I recall shaking in my boots as I prepared to do battle with hard-nosed businessmen. I felt as much out of my depth in the negotiations as they did in trying to meet the exacting specifications of their ICRISAT contracts. But things went much better than I had expected. The contractors convinced me that they had real problems with the project and that they were making reasonable demands, and I was able to convince them that ICRISAT had limited funds and that the piece rates were not only justified but would not to be changed.

In the end we were able to sign amendments with all contractors, as well as the architects, giving each a percentage increase. At the next Executive Committee meeting I told a surprised board (rather proudly I admit) that all issues had been settled for approximately $400,000 less than the Board had authorized. With the saved funds, some deferred and additional buildings were authorized, including the germplasm facility and the second block of flatlets.

Here are some slightly modified excerpts of the poem by Sue Hainsworth.

By the town of Patancheru
On the snaking Bombay Highway
Stands the Campus of ICRISAT.
Dark behind it rise the factories,
Rise the dark satanic factories
Belching smoke and dire pollution.
Bright before it grows the research,
Grow the sorghum and the groundnut,
Grow the millet, and the pulses,
Grow the semi-arid mandates.

Gradually grew the Campus
Grew the dormitories and flatlets,
Grew the labs with their equipment
Grew the greenhouses and crop work areas.
Grew the swimming pool and houses,
Grew PPS and the canteens,
Grew the Library and Fiscal,
Grew the bus stops and the Laundry.

Then began the great recruitment,
From throughout the world they came,
Every country; every region,
We will help resource-poor farmers—
Semi-arid crops sustain.
Then the fields were full of workers
Ladies saried green as grass,
Scaring birds, and weeding millet
Queuing weekly for a pass.

So the Campus thrived and prospered,
Grew strong staff who sailed away
Taking ICRISAT to Africa.
All the semi-arid regions,
Each had Centers, Teams, and Networks,
Each had scientists, field staff, drivers.
All held workshops, wrote long papers,
Grew more trials and nurseries yearly,
Needed bigger budgets yet.

Over all there watched Les Swindale
Watched his projects and his family,
Saw the children run on Sports Day
Watched the cricket - played it too.
Calmed the riots, fed the hungry.
Welcomed trainees by the thousand,
Hoped they would be happy learning,
Gave them hats and wore one too!

Till at last Les and Delle Swindale
Felt their time with us was over
Wanted to see more of family,
Wanted to see green New Zealand,
And Hawaii's coral strand.

Near the town of Patancheru
By the snaking Bombay Highway
On the Campus live the family
Live the wide and varied family
Who will keep its memories green.

My second anecdote relates to the farewell accorded Mrs Swindale and me by the ICRISAT staff when we left in 1991. We vividly remember the meetings with the staff and workers in most of the ICRISAT locations. We remember the ride in the ceremonial bullock cart with SK Sharma as driver, the many gifts and the parties in our honor. Most touching of all was the grand farewell program on the outdoor stage at ICRISAT Center.

Sue Hainsworth, relentlessly encouraged, as she told me later, by Bharati Patel, wrote a poem for the occasion called *Hiaswindale's Farewell* based upon Longfellow's *Song of Hiawatha.* It may be considered a kind of poetic history of the first half of ICRISAT's existence.

Hans-Jurgen von Maydeli *Board Chair*

After a long and exhaustive meeting on partnership, I relaxed in the shade of a tree. As I meditated over what had been said, the provocative comments of a delegate at the first United Nations Conference on Desertification sprang to mind: 'Go ahead. Put $1000 into the sand of the Sahara - will it turn green? No! Human work is required, joint efforts, labor input.'

I thought about 'joint efforts'. What bearing did this have on ICRISAT's work? Obviously the nature of human society means that any act has an impact on others - but in what ways? How was ICRISAT affecting the lives of those it wanted to help? Perhaps, I thought, we need to look to our partners even more.

I realized that funding was not the major obstacle to success. Take the relationship between fertilizer input and crop yield. Plants will grow better if they are fertilized. Initially, the application of more fertilizer will increase yields. Soon, however, a saturation point will be reached and additional fertilizer will not improve the yield. It may even lead to soil and crop damage. Just throwing money at the problem is not enough. ICRISAT needs to work in concert with

Jim Ryan with Hans-Jurgen von Maydell.

others to stimulate, accelerate and maybe even reorient its activities. I got up from the shade and walked back to the lobby to meet my colleagues.

Ragnhlld Sohlberg, *Board Chair*

Trying to select only a few anecdotes from my six years (February 1995- April 2001) on the Governing Board of ICRISAT was very hard. But here are a few that stuck in my mind.

When I arrived in India in 1995, it was my first visit to the tropics. I will never forget the friendliness and understanding with which I was received. On lab visits, the scientists always answered my stupid questions with patience and respect. It didn't take long before I recognized ICRISAT's mandate crops and began to appreciate the value of the many varieties.

Ragnhild Sohlberg being interviewed.

What comes first to mind when I think of Patancheru is the beautiful, peaceful image of the graceful women coming to work in the early morning light from the neighboring villages, clad in their green saris and carrying small buckets (which I later found out contained their lunch). The school for village girls and women particularly struck me. I won't forget the impressive grandmother who sat next to her grandchild in the same class. Before she joined the school she had hardly ever left her house in the village. Now she stood up in class in front of foreign visitors and answered questions about herself and her life. It is amazing what education and training has done for these women and children and I have nothing but admiration for those who operate the school.

Meeting ICRISAT's target group, the smallholder farmers, in their local environment made a lasting impression on me. I remember my first field trip to Kotepalli in 1995, where the farmers sat along the roadside waiting for the trucks to drive over their harvest! An ingenious, labor-saving way of threshing grain!

I also cherish the memories of visits to ICRISAT's locations in Africa. I won't forget dancing with the well-organized women farmers of Matabeleland. They

gained so much benefit from the improved crop varieties that they needed a labor-saving hand thresher. Thanks to the Director General, William Dar, they were immmediately promised one. This episode reminded me how necessary it is to think holistically when we attempt to assist the smallholder farmers.

Lydia Flynn, *Head of Visitors Services*

My first job at ICRISAT was as secretary to two very different people: Peter Dart, a microbiologist, and Jim Estes, Head of Computer Services. Peter came from Australia and his English was fairly familiar to me. But with Jim, I realized the truth of Churchill's famous statement that Americans and Britons are two peoples divided by a common language! Jim walked into my office one day holding a sheet of paper and said, 'Post this.' To whom?' I asked. He said, 'What do you mean to whom?' To me, to 'post' something meant putting a stamp on it, and mailing it from a post office. But when Americans say 'post' they mean 'pin it up on a notice board'!

Another incident took place a year or so later. An engineer was flown up from Bangalore to repair a computer. Jim came to me and asked where he could buy oil-cloth to clean the computer parts.' This shocked me. I couldn't imagine delicate computer parts being cleaned with a rough oil-cloth. I said, 'Are you sure you need OIL-cloth?' The engineer asked for it,' he replied. 'But oil cloth is like, like... a macintosh!' said I, thinking of waterproof raincoats. 'Macintosh? That's an apple,' said Jim, adding to my confusion. It turned out that the engineer, speaking Indian English, had asked for VOILE cloth!

Jerry Warren, a consultant statistician, used to bring delicious sandwiches, packed caringly by Enoch at the Guest House, to the newly occupied Computer Center at Patancheru. There was a severe rat problem at Patancheru in 1979, and one day, much to Jerry's dismay, a rat chewed through his plastic lunch box and devoured his sandwich. The canteen didn't exist at that time, so a few of us

Lydia Flynn.

Estes farewell speech at Manmool.

rallied round and shared our lunches with Jerry. Jim Estes, known for his skill with languages, was demonstrating his talent at the lunch table. 'Jim can even purr like a cat,' said someone. 'Is that right, Jim?' asked Jerry, and Jim obligingly produced a long and impressive 'Puuuurrrrrrrmp!' Then why can't you catch rats?' asked Jerry.

It is interesting to note that Jim Estes is the only non-Indian staff member to make his farewell speech in Hindi, which he did to everyone's amazement (and to the delight of all Hindi speakers) at Manmool Castle in April 1994.

In 1986 ICRISAT held its Board Meetings in Zimbabwe. To coincide with this we were asked to set up a computer center in the Bulawayo office (the center at Matopos was in the process of being built). I was sent to teach the staff at Bulawayo how to use their computers. During introductions on the first day of class one of the students told me his name was "Udder". Thinking it completely natural for someone to have a name like that in a foreign country, I called him "Udder" throughout the day. At the end of the day I got a glimpse of his name written on his text book. To my great embarrassment I saw that it was 'Arthur'.

Of all the French who ever worked at Patancheru, Fabrice Pinard and Michel Peterschmitt were the most typical - fun-loving, romantic and great cooks. In India some think it polite to ask for one's 'good name' rather than just the person's name. One day Michel related this funny experience to a group of us: *I had worked late, and was driving through the main gate when a security guard stopped me. What is your good name sir?' he asked. I told him it was Dr Peterschmitt. I thought it was polite to repay the compliment, so I asked 'And what is YOUR good name please?' Do you know what this fellow replied? 'Big Chapatti!'* (A chapatti is a flat Indian bread). At this point Michel burst into uproarious laughter. He thought the security guard was calling himself the equivalent of 'The Big Cheese'. But the guard had actually told him his real name: Bikshapathy!

Subhash Gupta, *Technical Advisor, Delhi Office*

I joined ICRISAT in Hyderabad in December 1973 as Plant Breeder and worked for the institute for over 28 years. Even after my retirement I still work on a voluntary basis. My tenure with ICRISAT is perhaps unique in that I worked on four different crops at six different locations in all the research divisions under six job designations! My duties took me to Patancheru. Bambey (Senegal), Bulawayo, Niamey, Kano, and finally Delhi.

I have hundreds of memories but I will recount just one. During the early eighties while I was posted in Senegal, I decided to visit Niokolakoba Park. I got lost and wound up spending the night near a river. I hadn't seen any animals all day so I wasn't too worried. Besides, everyone had told me that there were no large numbers of wild animals in West Africa. If that is true, the few who *do* live there all showed up that night to drink at the river. I couldn't see them, but I certainly could *hear them* - needless to say, I spent a sleepless night!

Sarwat Hussain, *Senior Information Officer, CGIAR*

Gridlock on the Begumpet Flyover. Hyderabad's traffic is legendary. Unwittingly, one day in 1995,1 was myself the cause of gridlock on the Begumpet flyover. I had the privilege of accompanying Ismail Serageldin, CGIAR Chairman and World Bank Vice President, on his visit to ICRISAT. Among other things, his portfolio included oversight of the Bank's lending for urban development, including transport. I thought why not round off the trip nicely by showing him a working example of 'sustainable transport'.

The plan was simple. We were staying at the Oberoi, and over breakfast, I handed the Chairman a note, requesting that he give it to his driver. It read: 'Please stop at the end of the Begumpet flyover, near the entrance of Hyderabad Public School.' I explained I was running an errand and would meet him there and accompany him to the airport. As luck would have it, in addition to ICRISAT colleagues, quite a few government officials came to see him off. It was a long

Gupta in Africa.

Sustainable transportation for Chairman Serageldin and Director General Ryan, courtesy of Sarwat Hussain and his trusty FIAT.

convoy of cars headed to the airport, traversing the famous Begumpet flyover. Speed was a major casualty because the driver in the lead car was pondering the cryptic nature of the 'instructions' that had been handed to him!

To complete my 'errand' I rushed home to Begumpet, dusted the last cobwebs off my trusty 1933 Fiat 514, and drove as quickly as I could to the rendezvous point at the foot of the flyover. I arrived just in time to see a long line of cars, most of them still on the flyover, led by ICRISAT's smart-looking Cedric 'DG-mobile'.

Words cannot adequately describe the look of disbelief when I told Dr Serageldin, 'Mr Vice President, this is a FIAT - a Fine Italian Attempt at Transportation, and in these here parts, we Hyderabadis see it as an outstanding example of sustainable urban transport complete with tires used in animal-drawn farm vehicles. I will now be happy to take you and Dr Ryan to Begumpet Airport.'

NSL Kumar.

As can be imagined, it was quite a transition from the swift and sleek DG-mobile to the rattletrap FIAT. Undeterred, Drs Serageldin and Ryan squeezed into the back, and off we went. We arrived without mishap, although we came close when I took a sharp left turn into the airport and the back door swung open, nearly disgorging Dr Ryan!

NSL Kumar, *former Personnel Officer*

In 1976, Dr Ernie Nunn was telling me that some of his supervisors had complained that child labor was being recruited for farm operations. I replied: 'Mr Nunn, it will interest you to know that the supervisors only declared them as child labor after employing them for a few days on the farm!' Mr Nunn burst out in laughter.

SS *Lateef,* *former Entomologist*

In 1974, JC Davies established an Entomology Research Unit and appointed three Research Associates, KV Seshu Reddy, SS Lateef, and VS Bhatnagar. In 1977, the unit was split into Cereals, Pulses, and Cropping Systems Entomology, and these were assigned to different crop improvement programs. Bill Reed became the Unit Leader of the Pulse Entomology Research Unit (PERU). Later, both John Wightman and Michel Pimbert worked as Principal Entomologists in PERU (not the country but the unit!).

Eric Roberts, *Board Chair*

I have been associated with ICRISAT almost since it was founded. Accordingly I have many happy memories, but I shall restrict myself to three, each relating to three separate phases of *my* association.

Phase 1. While I was Professor of Crop Production at Reading University in the UK, I helped developed a joint research program with ICRISAT on the physiology of chickpeas. I cannot remember the precise dates, but it was soon after **ICRISAT** was founded and before the laboratory and office blocks at Patancheru had been built. Our main contacts at that time were Rupert Sheldrake (who later attended an ashram in South India and became the author of a number of books on the subject of mysticism) and John Green. At that time it was the custom of visiting scientists to give seminars, and I gave one in Manmool Castle. I have never lectured in a more engaging venue. It was beautifully cool and provided a wonderful atmosphere. I cannot remember the subject of my talk, but I shall never forget the castle and the spirit of the employees of ICRISAT at that time. They clearly knew they were pioneers in something new and very important. In a way, the ancient castle and temples of Manmool, surrounded by modern crop experiments, were a metaphor for what ICRISAT stands for: new ideas and developments based on a respect for the wisdom and experience of the past.

Eric Roberts, ICRISATs fifth Board Chair.

Phase 2. Many years later, I was invited to become a member of the ICRISAT Board. I was very proud to be invited and delighted to serve and, in due course, to follow Bill Mashler as Chair. The work was interesting, often intense, and not without its tensions and problems, but what sticks in my memory is the enormous help the Board was given by the staff. If I must single out one of them, it has to be Balu, who reigned over the Director-General's Office. Nothing was too much trouble, and he somehow managed to remain cheerful, whatever the pressures and difficulties.

Phase 3. The final phase of my association with ICRISAT came unexpectedly. I had recently retired from the University of Reading when I received a telephone call from Jim Ryan, then the DG, asking if I would come immediately and act as Director of Research following the resignation of Don Byth. I said 'No' But Jim's powers of persuasion, combined with my weak will and an affection for ICRISAT, caused my wife Dorothy and me to find ourselves in Patancheru. We forged many lasting friendships, especially amongst Indian colleagues, and we got to know a little more about the country we had both grown to love. I recall one memorable gem out of that wealth of experience. Each morning, from our house on the campus, we could see the women field workers walking elegantly and purposefully on their way to their tasks. The morning sunshine caught their colorful saris, and they provided a simple but graceful pageant. Later on, in the heat of the afternoon, they returned and, by some miracle, still managed to look as clean, fresh and lively as they did in the morning, despite a hard day's work in the field!

PM Menon, *Manager, Delhi Office*

A newly appointed Australian arrived at Hyderabad with his wife and two children. They were young and had never visited India before. Upon reaching the airport, the scientist went into the urinal...to his surprise he saw blood all over the walls! Then he and his wife noticed blood in very nook and comer of the

Mashlerand Roberts.

The Croup (CGIAR) had a number of substantive achievements too during those early days. I remember with particular satisfaction the decisions to accept CIP into the system and to establish as new entities ICRISAT, ILRAD (now ILRI), and IBPGR (now IPCRI). Their many accomplishments to date have contributed much to the CCIAR's success.

Richard Demuth, CGIAR Chairman 1971-74, October 1996

buildings - and on the roads they saw blood oozing from the mouths of several people, including the ICRISAT driver and the late KC Saxena who had come to welcome them! People here have serious health problems, they thought. When they checked into the ICRISAT Guest House at Panjagutta, the scientist discreetly asked Mary Cummings about the 'blood' problem. 'Oh, that!' explained Mrs Cummings with a smile, 'it's just the *pan* chewing habit of Hyderabadis!'

Ernie Nunn took charge of Farm Development and Operations in 1973. He was from the southern state of Georgia in the USA and had an accent few Hyderabadis had ever experienced. Beyond that, he used to chew tobacco and always had a cigar in his mouth. Nunn was a familiar figure in his station wagon, driving around the farm, giving instructions to the workers. One can just imagine the difficulties our young staff had with him - most of them never understood a word he said but were too polite to say so! They would come to me for help, and I used to solve the problem by asking him what he had said to whom at what place. Thus I became an interpreter for many staff...from southern American English to Indian English!

PM Menon.

Jim Ryan, *Director General*

My earliest recollection of ICRISAT was the temporary accommodation at different locations in Hyderabad from 1974 to 1979. The Economics Program first had its office in a house at Begumpet near the airport. Later we moved to an even larger house at the end of Road Number 12 in Banjara Hills. It was painted bright pink and our office had a wonderful view of Golconda and the Qutb Shahi Tombs. It was in this building that the first ICRISAT VAX computer was lifted into position with a crane.

The Economics Program later moved to a large house on Road 7 in Banjara Hills opposite the Iranian Consulate, and finally to the Patancheru campus around 1979. By that time ICRISAT staff numbers had grown such that the space originally planned for us in the new campus buildings was reassigned and we

Jim Ryan, Economist and Director General.

MS Swaminathan, RS Paroda and JG Ryan at the International Crop Science Congress, 1996.

were allocated to the dormitories. Indeed, by the time I left ICRISAT in 1983 we were still in the dormitories and I never did have an office until my return in 1991!

The village level studies I conceived with Hans Binswanger and Narpat Jodha were my life in those days. I came to so enjoy the wonderful spicy food in the villages that my friends and family regarded me as a gastronomic masochist! I said that you could judge how happy I was by the frequency and duration of the hiccups I always got after being treated to curry, dhal and rice. I was moved by the reception Wendy and I received after I rejoined ICRISAT as Director General when we visited Kanzara village in Akola District of Maharashtra, where I spent much of my time earlier. The whole village welcomed us in a moving ceremony, which began with our entry into the village on a garlanded bullock cart escorted by dancing schoolchildren.

The opportunity to work in a multidisciplinary environment at ICRISAT was personally and professionally rewarding. Bert Krantz, Jack Kampen and their colleagues were valued colleagues, even though we economists often raised unwelcome questions. My fondest memory of Bert was when he addressed the many visitors to the black soil watersheds on the Patancheru campus. No more enthusiastic and committed advocate of watershed approaches was there than the lovable Bert. He used to say that not only do you lose your shirt in these soils but also your *chappals* (sandals)! I can remember being with Jack Kampen in Kanzara village one wet season where we were doing on-farm trials of small watersheds on the black soils there. Jack had his rubber gum boots on as he always did, but after a few steps into the watershed they were sucked off by the wet soils. Bert was right!

As Director General, one of my proudest moments was when ICRISAT was awarded the King Baudouin Award by the CGIAR in 1996 for research on pearl millet. To have it followed by a second consecutive triumph for our pigeonpea research in 1998 was unprecedented. My happiest occasions as Director General were hosting with Wendy the annual Christmas parties at Kaliva, the

ICRISAT Annual Days and the wonderful functions arranged by the parents and children of the ICRISAT Association for Community Development and the International School of Hyderabad.

Pham Thi Voung, *trainee from Vietnam*

I still remember my first night at ICRISAT. Those who know about international research organizations always dream of a job in the system. It is a good goal, but one has to work your way in. There are thousands of competitors, so when one is short-listed for a job, several coconuts are offered in gratitude to God. When my director told me that I had been selected for training abroad, my joy new no bounds. I informed all friends that I would soon be visiting ICRISAT in India. Though I was very happy to make my first foreign trip, the troubles soon started with the language. I started memorizing several English words every day. I only had a vocabulary of about 100 words to start with. Although I was confident of handling things, as the travel date came nearer my heart rate kept increasing.

The day came - all my friends gave me a joyful send-off at Ho Chi Minh Airport. I stepped onto the airplane and found it somewhat like the regular bus service in Hanoi but less crowded, with a special seat belt. At Begumpet airport I saw someone with an ICRISAT board. Because of my nervousness I had completely forgotten all my English and just followed him without saying anything. After an hour's drive we reached some place with huge gates. The gates opened, a guard wrote something in his notebook, and we were allowed inside. It was about 8 pm. I was taken to the canteen by a small bearded man *[probably Samy Mazumdar]* who pointed to different food items. I thought I should eat something to please him. Later I was taken to my room. My guide showed me the restrooms and other things and disappeared. It was about 9 pm. I wanted to relax and meet others from my motherland, but where to go, whom to ask, and how?

Dinner in Vietnam.

After a short nap I changed my clothes, kept my room key safely in my bag and went to the bathroom, which is located in the common area outside the room. This is when the problems started. The door got locked by itself with the key inside. My fear knew no bounds. I thought that ICRISAT would punish me severely in the morning because I had left the keys inside and the door would have to broken open. Where to go? Where to sleep? I was worried about safety at night. Then I got a brilliant idea - the rest room would be the best place. I sat on the floor of the rest room, leaning against the door. Soon the mosquitoes arrived to keep me company for the night. I grew more and more miserable, but somehow passed the night.

I was awakened by a knock on the door in the morning, and I was soon surrounded by helpful men trying to help me. But then, nothing comes easy in this world. After this painful initiation, I gradually learned to understand how ICRISAT worked, and over the years I have been able to develop an effective partnership with ICRISAT scientists.

GV Ranga Rao - *Language, no problem. Communication, big problem*

Visiting a foreign country is always a thrill and the first visit is even more thrilling. A long-term assignment in an outreach location is especially challenging but also a good education. One of our entomologists (let us call him Bugman) went to Vietnam on sabbatical. He reached the NARS headquarters safely and on schedule, and was settled in an isolated guest house in Chemtuleam, Hanoi. After a couple of days eating in the guest house canteen, he decided it was time to start cooking for himself, but he had no raw materials. So an interpreter arrived to explain where to do shopping, what to get, etc.

The director of the research station had told the interpreter to take Bugman shopping and to provide every assistance. The plan was to finish shopping and do a little sightseeing. Bugman and the interpreter set off and everything went

fine for the first half hour. Then came nature's call - Bugman needed to use the rest room and asked the guide to take him back to the guest house. The following conversation ensued.

'No problem. Please continue your shopping, the director has asked me to give you every assistance, I will remain with you even until 10 pm if necessary.'

'Not necessary, I just need to go back to the guest house. Urgently !'

Obviously there was a serious communication problem. Bugman tried all the vocabulary he knew - English, Vietnamese, even his native Telugu.

'No problem,' the guide kept saying cheerfully. 'Please take your time with shopping. There is no hurry, I will take you back safely in the evening.'

As the pressure kept building, Bugman tried conveying the message by drawing pictures. Still no use. He switched to sign language. No good. Then, in desperation, he tried even more graphic sign language (or body language), prompting startled glances from passers-by. Finally the message got through, and Bugman reached the guest house - just in time!

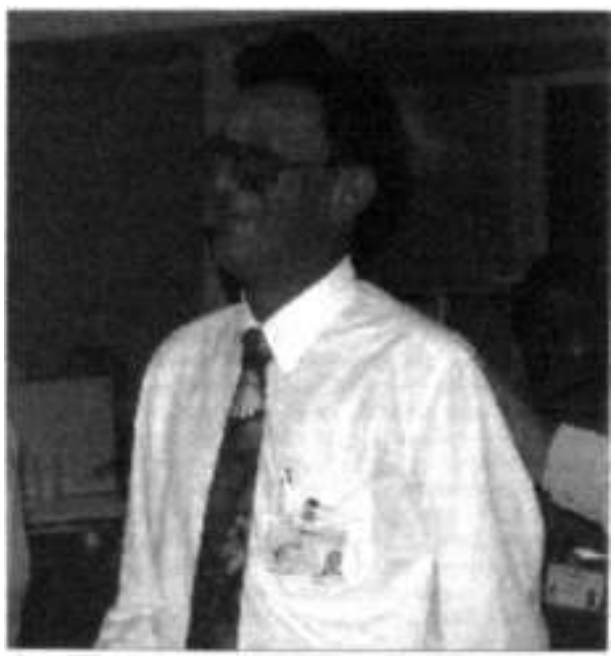
If there was one thing Bugman learned during his sabbatical in Vietnam, it was the importance of good communication with NARS partners.

The IPM man, GV Ranga Rao at right.

Shyam Nigam, *Principal Groundnut Breeder*

In 1982, Blantyre was the only international airport in Malawi. I arrived there during the first week of August. While traveling from Blantyre to Lilongwe on a local flight, the passenger on the next seat to me was an elderly British gentleman. Slowly, we got talking. It turned out that the fellow was the Principal Secretary in the Ministry of Public Works, Government of Malawi. The first thing he asked me was the model and system of VCR and TV that I had ordered from Hong Kong before leaving India. When told it was Sony NTSC, he advised me to

SN Nigam: 'Mr Peanut', gazing fondly at his crop.



DM Pawar.

change it to PAL system, if I wanted to enjoy my stay. All VCRs and TVs owned by families of Indian origin in Malawi, he assured me, had PAL system. Thus it was that the first telex I sent to Mr Vaidyanathan from Malawi dealt with this important topic.

When I asked the Britisher how to manage my work in Malawi, his answer was philosophical. He said that things moved on their own pace in Africa, and that there was no way this pace could be hastened. He said, if one tried to hasten this pace, he would get frustrated and ruin his health. His advice was to do one's best and leave the rest for African pace without losing sleep. I followed this mantra during the whole period of my stay in Malawi and came back to India in 1986 in sound health.

Deepak Pawar, *former Head of Visitors Services*

Manmool, mid 1974. It was around this time that we bid goodbye to the old tin shed called the CI Building (Crop Improvement Building). This rented building near Patancheru village was used from 1972 to 1974. When we shifted to Manmool, we were allotted the two-story building presently used by the Directorate of Rice Research.

Hugh Doggett, the head of sorghum breeding, had an assistant named Peter Lawrence, a postdoctoral fellow from Australia. Peter is still remembered by the sorghum staff for his wit and presence of mind. Across the road from the sorghum building was the Pulse Program Office headed by John Green. John, because of his age and experience, was made the 'Mayor of Manmool' and looked after the day-to-day problems of the village. One of the biggest problems was keeping the place clean. Peter, because of his nature, soon became a big problem for John as he would approach him every day with some trash or other. So John decided the best way to solve this problem was make Peter in charge of the Trash Patrol. This was done and Peter in this capacity called for the first meeting. The following IOM was issued.

To: ALL HEADS OF CROPS/UNITS
Prom: PKL
Subject: RUBBISH

I wish to invite the attention of all the above that I am calling a meeting this afternoon. The only subject on the agenda is RUBBISH. Please make it convenient to attend.

Lee House, *Executive Director, SADC/ICRISAT, Zimbabwe*

A brief statement of background history leading up to the establishment of ICRISAT may be of interest. In 1966, Rockefeller staff in both New York and India began to explore the idea of developing an Uplands Crops Research Institute.

In 1970 and 1971, interest was expressed by both USAID and FAO. The scope of a Regional Uplands Crops Research Institute expanded and a separate institute was increasingly considered. NGP Rao, the then Coordinator of the All India Sorghum Improvement Program, and I. were involved in organizing this report. The Indian locations considered were Poona, Indore, Bangalore, Varanasi and Hyderabad. In Hyderabad, Dr Rao and I visited a Zamindar in the old city and he indicated four possible locations, writing them on the back of an old envelope (I wish that I still had that envelope!). One of them was part of the Bharat Heavy Electricals Limited (BHEL) site at Patancheru. Dr Rao and I walked over this site several times prior to the visit of the feasibility study team.

After a 5-year stint with the Ford Foundation in Lebanon, during which ICRISAT set up operations at Patancheru, I returned to Hyderabad as an ICRISAT employee. This was in February 1977. I was recruited as a sorghum breeder and subsequently became leader of the sorghum program.

Lee *House, one of the first scientists to join ICRISAT.*

Other things contributed to making our stay in India a pleasant experience. High on the list was the birth of our three sons at the BHEL hospital. A strong friendship developed with the doctor who delivered them, which continues to this day. The ICRISAT campus was a great place to bring up the boys. I modified a cycle rickshaw and every evening my wife, Fadia, would take the boys for a ride around the campus. Fadia loves to cook, and spent many happy hours trading recipes with other wives. From her Indian friends, she learned to prepare many Indian dishes. Fadia missed India when we departed, and to this day maintains contact with many friends, including their grown-up children. We all enjoyed our time in India and living on the ICRISAT Campus.

In the early eighties, the Southern African Development Coordination Conference (SADCC) invited ICRISAT to establish a regional sorghum and millet program. I first went to Zimbabwe in 1982 and began making plans for such an activity. The project began in May 1984 with three ICRISAT staff moving to Bulawayo and establishing a base at Matopos Research Station. Facilities were created, fields prepared and farm equipment acquired.

Bulawayo fields.

Just prior to my retirement in 1993, southern Africa suffered the worst drought of the century. With financial support from USAID and CIDA we were able to rent 1000 hectares of irrigated land for off-season production from the Gwembi Valley Development Corporation, situated in Zambia on the bank of Lake Kariba. Water was scarce but together we were able to produce about a 1000 tons of seeds of sorghum and pearl millet for Namibia, Zambia, Zimbabwe and Malawi. It was to the credit of the programs in these countries that there was sufficient good quality seed of improved varieties. The availability of the produced seed did much to increase farmer use of the improved varieties.

K Sampath and AJ Ramarao

Back in 1974, life in Manmool was both challenging and exciting, especially for the three-member secretarial team. From a hectic city life, we were immersed daily in a remote village.

The Pulses Program was housed in the then famous Building No. 15, the hub of all activity because it was the office of the 'Mayor of Manmool', John Green. There was no telephone - a wireless set was all that was available. Ramarao was in charge of wireless communication from the Mayor's office. Worse, for the first few months we had no electricity! What a relief when after some time a generator was installed opposite Building No. 15, ably manned by Frederick D'Costa.

No electric typewriters were available in those days. We had to prepare our reports with our trusty old Royal brand manual typewriters. These reports were full of numbers, and our fingers used to go numb depressing the hard type keys!

But there were small pleasures too. We managed to set up a Tea Club - ably supported by two Temporary Farm Laborers (TFLs), K Yadi Reddy and Narsamma. This club catered not only to the Pulses Breeding staff but also provided tea to the land equipment operators and visitors to Manmool.

And there were rats! Frequently, when we removed the covers of our typewriters in the morning, we found that the ribbons had been devoured during the night by these 'night watchmen'!

Working late was common in those early days, but the staff enjoyed the extra work with no expectation of any extra remuneration. Snakes and other reptiles were frequent visitors during those late hours - as if to check our loyalty and dedication!

Important events hosted at Manmool Castle included the First Quinquennial Review and the farewell to the first Director of ICRISAT, Ralph Cummings. Weekly seminars were also conducted in Manmool Castle, one of them by the then President of the World Bank, Robert McNamara.

Sampath Kumar and Ramarao.

McNamara visits ICRISAT.

The 'Mayor's Office'at Manmool.

Reaching Manmool was an experience in itself. About 50 of us worked in the various offices that had comprised Manmool village. Initially, we had only two staff buses - one was a hired bus plying the Secunderabad route, the other an ICRISAT-owned vehicle. It was green in color and its plate number was APB 952. It was proudly driven by the popular and ever cheerful operator Jagdish. There were two or three other Peugeot sedans and station wagons that were used to convey AA category staff like KB Singh and D Sharma. The vehicles dropped staff off at the Main Gate, which then adjoined the old FDO buildings. The gate is still there, although it is permanently closed.

All staff had to be transported to their workplaces in the fields or in Manmool in six pick-ups. Scientists and field staff were given priority. During the cropping season, the field staff (including the scientists) were dropped off directly at the appropriate fields, and they reached office only during lunch break. After all field staff were dropped at their fields, the pick-ups took the administrative staff to Manmool. We were a very interesting spectacle - standing passengers awaiting a Matador van for a ride from FDO to Manmool!

The staff of Pulses Breeding in Building No. 15 will never forget the unending debates between KB Singh and D Sharma, who always held opposite views on everything - whether the subject was politics or cricket!

One of the drivers met Dr Green and said something. Dr Green immediately rushed to Sampath to find out why the driver didn't like his job and was planning to quit to join another office. A bit surprised, Sampath asked the driver what he had said to Dr Green. On hearing his response, Sampath could not control his laughter. The driver had said, 'Khudahafeez' to Dr Green, which means 'goodbye' in Urdu. Dr Green had heard him say 'Some other office'!

David Andrews, *Principal Millet Breeder, and his wife Celia*

I arrived mid 1973 as Employee #7 and Celia came in 1975. The strong feeling that great things were possible created some sort of common bond. Of course, this did not happen by chance. There was the vision and organizational ability of Ralph Cummings, JS Kanwar's great talent for managing science, Hugh Doggett's knowledge of crop science, and the miracle-working of Ernie Nunn and DS Bisht in transforming 5000 acres into experimental fields, roads, dams and irrigation systems. When there were people who could do all that, how could you not want to do what you knew needed doing, as rapidly as possible?

For the ladies, setting up and running a home, with husbands often away, was a daunting task. However, Mary Cummings, Jane Doggett and Kay Ramachandran were mainstays who knew what should and could be done, and where just about anything could be made, brought or borrowed.

Then there was Hyderabad. What a fascinating city it was, all manner of shops: food shops (Shree Shanti Stores), vegetable markets, restaurants (Blue Diamond, Banjara Hotel), cloth shops, bazaars (Cheap Jack Alley), emporiums, the Old City, jewelers, and marvelous historic places (palaces, Charminar, Golconda, etc.). Banjara Hills was a great place to live. Fine houses and even finer neighbors, and the endless social life (you had to put limits), tennis, parties, various functions. The Secunderabad Club was a terrific bonus with its large swimming pool, squash and tennis courts and excellent Sunday lunch buffets. Membership also gave us a chance to play on the golf course at Bolarum.

Celia and I thought life would be dull after moving to live at the site in 1979, but it was not - we found other unexpected interests. ICRISAT was quite a different and relaxing place after everyone went home from work. It was peaceful and fun to explore, jogging or walking and full of wildlife, some 100 species of birds and some surprising animals like jackals and large cats and the rod and line fishing was good.

David Andrews (center).

HS Duggal, ICRISATs first official photographer.

Against this background there were many memorable incidents.

ICRISATs first office was in a two-story rented house on the road to Hyderabad airport. HS Duggal, the photographer, had to set up his 'studio' with his high power lights, reflectors, and whatnot on the large upper landing. One day, while at my desk downstairs, I heard a lot of metallic clattering, thumping and bumping on the floor, followed by some drawn out moaning and groaning. Dashing upstairs I found Duggal getting up from a pile of equipment. Fortunately he was all right, though I thought his turban had changed color somewhat!

All travel arrangements in the early days were made by Travel Rao' (SCBM Rao), the original 'Mr Fixit'. He knew a lot of people in the travel business and could manage just about anything. I know for a fact that he could get people on planes that were already full, as he did for a visiting groundnut scientist. When everyone had sat down on the plane leaving Hyderabad for Bombay, one person with a boarding pass was still standing. Considerable discussion ensued and I believe in the end the youngest single person had to get off!

We played a lot of tennis. Celia and I had memorable matches on the court at Kaliva with Santosh Reddy, Keith Auckland, Amir Kassam and Jaisima, the Indian Test batsman, who could beat all of us singlehanded. The courts at the site were busy too. I recollect a finals match with SK Dasgupta that turned into a trial of endurance. As our winning skills deserted both of us, it became a matter of just keeping the ball in play. I actually forget who won - it was the game that was memorable.

The decade Celia and I spent at ICRISAT was a tremendously rewarding part of our lives. We made lifelong friends, some of whom are still in India. We came to know and appreciate Hyderbad and India like no visitors ever can. We've enjoyed returning to ICRISAT and Hyderabad, but it is not quite the same, as there are no times like the 'good old times'.

CLL Gowda, *Global Theme Leader*

A short cut can take long time! I needed to travel to Bhavanipatna in Madhya Pradesh to visit collaborative chickpea trials. I looked at the map and discussed the route with my driver, Zama Shah Khan. We decided to take a road known to neither of us, but which seemed to go in the right direction. A bit confused, we stopped to ask some villagers for directions. They indicated a road, and off we went. It was late in the day and we were entering a forest. Soon it became dark and the road disappeared. We just drove along a dirt track, and soon we found ourselves with no track at all! Around 9 pm, when we were getting desperate, we saw a light - it was the forest guard's house. He was helpful, and put us in a spare room for the night. I had two *parathas* from the lunch my wife had packed. I ate one and gave one to driver. That was dinner.

We could not get much sleep on the mat provided by the guard, and early the next day we went exploring. There was a river (the Indravati) nearby, but no bridge to cross it. We could not go back, as the fuel tank was nearly empty. After consultations with fishermen, we came up with a solution. They would tie two wooden planks on three catamarans, and drive the car onto the planks. They would then push the catamarans to the other side of the river. The skill and dexterity of Mr Khan in getting the car onto the 12-inch planks was put to test, but he passed with flying colors. Off we went, the two of us huddled on the outer catamarans, while four fishermen pushed the car on the other catamarans across the river. Once across, we had to find enough petrol to reach the nearest station 65 km away. Luckily, we found a mechanic who provided us with 10 liters (for a premium) and eventually reached the petrol station. We reached Bhavanipatna in the evening - considerably later than it would have taken had we used the 'long route'!

All in a day's work - CLL Gowda on his way to chickpea trials.

Dancing with police for increasing groundnut production in Vietnam. Sounds strange, doesn't it? But that is precisely what we had to do in Go Dau, in Vietnam's Tay Ninh Province in 1991. Since the travel from Ho Chi Minh City and back would take three hours each day, we requested our hosts at the Institute of Agricultural Sciences and the Oil Plants Institute to arrange accommodation at Go Dau itself. They told us that although there were no hotels, we could stay at the District People's Committee Office. However, they were unable to arrange clearance with the local police for the visit of foreigners (SN Nigam, GV Ranga Rao, John Foster and myself).

CLL Gowda, GV Ranga Rao, SN Nigam and their Vietnamese colleagues.

After the day's work in the villages, we had a small get-together. Just as the dusk was setting in, the district police chief arrived along with a friend, who we later learned was his English tutor. After inquiring about the foreigners' visit, he told us that he also wanted to polish his English with the visitors. Although he was a little inhibited in the beginning, his delivery of words and sentences improved considerably after a can or two of beer. He then invited us to the police station to join his men, as there was a celebration. We had no choice but to accompany him. We were warmly welcomed and treated well. We tried to join in their singing, but they must have been disappointed with our Vietnamese and asked us to sing Indian songs instead. None of us could remember anything except a song from the movie 'Tejaab' - *ek, do, teen...*

We sang it again and again and again, until they finally gave us permission to return to our room to sleep. For the record, the project was a success, but I never want to hear that song again!

The challenge of partnerships. During a survey in northern Vietnam, four of us joined a group of ten Vietnamese colleagues. As a gesture of courtesy, our hosts offered us beer during lunch. The leader of the Vietnamese group, Dr Tran Van Lai, was goading me to drink beer with them, and I was refusing since I feel drowsy if I drink during lunch. In a light vein, he commented that I was behaving like a lady because I was unwilling to drink with them. Feeling slightly offended, I offered a challenge: that evening I would drink one can of beer more than he could. The challenge was accepted.

At the hotel in Vinh City, the competition began. As is the custom in China and Vietnam, both contestants have to drink a full glass of beer in one go (*kambe* in Chinese and *tram an tram* in Vietnamese). After two *tram an tram,* Dr Lai requested a replacement as he had some problem with his stomach. I continued the match with the replacement, but he too wanted a replacement after some time. At this point, I asked for only one replacement from ICRISAT side, whereupon Dr Nigam nobly stood forth, and the competition continued. Rather than counting the number of beer cans, GV Ranga Rao, true scientist that he is, started stacking the cans on both sides so that one could see the score at a glance. When the ICRISAT team hit the ceiling with the last can, the match was declared adjourned - not completed! We still re-enact the game each time we have dinner together. Such are the sacrifices one makes when undertaking partnership research!

Vietnamese farmers.

DK Mehta, *Purchase and Supplies Division*

Mr R Vaidyanathan, a former colleague from The Rockefeller Foundation, joined ICRISAT in the middle of July 1972 immediately after the institute was established. I joined him in PSD on 16 January 1973. Subsequently, RS Murthy, Joseph Banji and Dassaratha also joined.

I was asked to monitor the unloading operations of earthmoving equipment donated by USAID when it started arriving at Lingampally railway station. The

DK Mehta.

small station had no facilities at all for unloading such heavy equipment. BHEL had a suitable siding, but railway regulations would not permit wagons booked to Lingampally to go onto the BHEL siding. But we managed at last to cut through the red tape and were finally permitted to unload our bulldozers and diggers at the BHEL siding.

Counting and conducting inspection of construction steel rods in the scorching sun is a terror even today. But we persevered. Activities at Patancheru were in full swing - one group shaping the land for cultivation, another digging the ground for construction, yet another building a lake for water storage. Our normal working day lasted 13-15 hours without weekends and holidays!

Slowly and steadily warehouses were arranged. In 1979, the entire activities of the institute were shifted to Patancheru and it was decided to dispose of the leftover construction materials. At the end of that year, a massive sale was organized. An asset management unit was established at that time, and since then 25,000 items have been sold valued at $20 million.

Eric McGaw with DVR Reddy at Jim Estes' farewell party.

Eric McGaw, Head of Public Awareness

I am one of the few to work for ICRISAT twice. I was interviewed the first time in March 1989. It was my first visit to India and I'll never forget it. Three full days of interviews with dozens of scientists and administrators had been arranged for me. The first one I met was Kanayo Nwanze. He invited me to sit down and the very first question he asked was... *What is the meaning of life?*

The next person I met was Lewis Mughogho. He was scanning my CV as I walked into his office. He politely offered me a chair, and then with furrowed brow looked up and said... *Manila? You live in Manila? Why do you want to come here?*

Next was Phil Moss. I arrived just in time for morning tea, and he kindly offered me a cup. As I peered inquiringly into the cup, he said... */ don't know what it is, coffee, tea or a little of both. I just drink it.*

Then there was Jan de Wet. He was incredible. He invited me into his office and told me to sit down. Then, with a malevolent grin across his face, he kicked off his chappals, squatted cross-legged on his chair, and looking for all the world like a giant bird of prey, said... *An editor, eh? What's the difference between WHICH and THAT?*

I had come to India with second thoughts about moving my family from the Philippines, but after meeting such astounding people I felt I had no choice - I accepted the offer!

Anwari Alam, *Receptionist*

The early days were full of hard work and enthusiasm. The staff was committed to accomplishing the work of the institute and everybody tried their best. Compared to the outside world, we *were* the best. During 1986/87, President APJ Abdul Kalam, the then Director of the Defence Research and Development Laboratory, expressing his appreciation for ICRISAT, invited a team for training.

Anwari Alam.

Sravan Kumar, *Chief Secretary of AP and Board member*

I have been associated with ICRISAT for about a decade. During the period when I was a Board member I noticed that ICRISAT has adopted its policies and programs according to the requirement of the area, which was commendable. ICRISAT had closely interacted with the farmers and other institutions engaged in the task of agricultural research.

Raj Paroda, *Board Chair and Vice Chair*

When I look back, it seems ICRISAT was established only yesterday. I started my career in agricultural research at around the same time ICRISAT was created. When I try to recall my own activities during the past 30 years it is all blurred. However, if I associate my reminiscences with ICRISAT it all becomes clear. And no wonder - I have had a very close working relationship with ICRISAT in various

Old friends: Raj Paroda and Willie Dar.

capacities, from Liaison Officer for ICRISAT's regional program for North India at Haryana Agricultural University in the mid-seventies to Board Chair in the late nineties.

In this mutual journey I have seen ICRISAT grow. By any yardstick it is today one of the finest CGIAR centers. Its three King Baudouin Awards exemplify its scientific accomplishments. ICRISAT has indeed grown tall, due mainly to the sound foundations laid for the institute by visionaries like Ralph Cummings and MS Swaminanthan. ICRISAT is fortunate to have had the leadership of eminent science managers such as Les Swindale and JS Kanwar, and later Jim Ryan and YL Nene.

As Executive Secretary of the Asia Pacific Association of Agricultural Research Institutions (APAARI), I fostered regional collaboration and partnership. ICRISAT was always an ally in this important endeavor. We jointly organized several expert consultations and established the Cereal Legume Asia Network (CLAN), which has benefited all the countries involved. In this process, both YL Nene and CLL Gowda played important roles.

Let me also mention the present dynamic Director General of ICRISAT, Willie Dar. He preceded me as Chairman of APAARI and was the author of our APAARI Perspective Plan for the period 1995-2000. We share a firm commitment to serve the NARS from the South. What a pleasant coincidence that he now heads ICRISAT to further this cause! My relationship with Willie goes even deeper. Since 1998, I have served as Chairman of the Global Forum on Agricultural Research (GFAR), while Willie is an alternate member representing the CGIAR centers on our Steering Committee.

Finally, I served as ICRISATs Vice Chair of the Governing Board for almost seven years (1994-2001), and as Chair during the year 1997/98. During this period, I was able to help facilitate the recommendation by ICRISATs external review panel that a better balance be achieved in the research agenda between Asia and Africa.

So, having already spent over half my life as a part of the ICRISAT family in one capacity or another, let me conclude by saying that I shall continue to be a staunch supporter of this great institute for as long as I am able.

Sue Hainsworth, *Head of Publications*

Of the 15 years I made the daily pilgrimage, some days stand out as splendidly hilarious milestones that broke the turgid routine. They certainly alleviated the daily grind and made the journeys worthwhile. Here are just a few 'golden moments'.

Soon after I arrived I was persuaded to emcee a gala ISRC evening at the Ravindra Bharathi - but no one told me this would involve throwing drunks out of the ladies drawing room, coping with fainting dancing girls and pinning up a lapsing dhoti as the actor spoke his entrance line! But - the show went on.

Marshalling 20 RWF ladies to dance for the Queen was fun - once we got past the near riot because one of them said her husband would not allow her to wear a purple sari, even if it was free. I might add that she d/d wear it on the day...and frequently afterwards when she always greeted me with a huge grin!

The following Annual Day in 1984 was the first on the stage by the 205 Dining Hall. I was asked to make announcements again (they never did learn) and I practiced very carefully an introduction in Telugu rendered by Prasada Lingam as Balachandrudu exhorting his troops before a battle. At the right moment, I said with flourish, 'Here is Balachandrudu!' Nothing happened. So, I said, 'Even now he approaches!' Still nothing. I resorted to 'Just now he is coming!' - a phrase frequently used before the days of e-mail when messages were passed by green-saried hand! This did the trick - he came and declaimed. Later backstage, I asked 'Where the hell were you?' to which he replied, 'Madam - I forgot my earrings and had to go back.'

Sue Hainsworth.

There were other gems - like the day I extracted a monitor lizard from the bindery - and another when I was presented with a bag-full of new born rats found nesting in the book store, or the snake in my office...but I digress.

We all remember the day Merle's bullocks bolted on Annual Day, but not many of us were privileged to be there when we conferred the 'Freedom of Ghana' on CW Hong before he left to work there for Global 2000.

More of us were involved in the best Annual Day of all time when we performed *ICRISAT Management in the Year 2000,* a fiendishly funny play written by John Montieth and Tom Walker, and rehearsed in back gardens whilst Sue Moss sewed herself to a standstill transforming Eric into a Very Large Bird.

The cast list speaks for itself. Michel Pimbert as Dr Nono sporting an ample belly and advocating chickpea as the cure for all (funny it has taken King Baudouin so long to catch up!). Tom Walker as Dr Ribbons, valiantly puffing yet another fag and hiding behind an ashtray a foot high in stubs. Fran Bidinger as Dr Wetday with a bowtie to match his nose. DVR Reddy (in Mardie Evans' kilt) as Dr McDongle demanding (and getting) a golf course on campus. David Evans incredibly maintaining a straight face whilst feeding the Model (Elena McGaw in box with legs) with the Fudge Factor supplied by Samy 'Zoomicar' Mazumdar with a wheel barrow. Merle Anders as Dr Mouse, horrified at the request to convert sorghum to fish. Chin Ong as Mr Goof - mystified by 57 committees (the acronyms for which Fran and I stenciled onto an endless roll of printout paper). Jim Estes as Dr Gotakecareofit in a wig and lungi that defied expression. John Peacock the Supreme Dr Chippendale in a rubber face that almost melted his own. And after the stage was swept by a tipsy Bharati Patel muttering in Gujarati Telugu we romped through the most improbable plot - punctuated by graphs of snowflakes, Korean Japanese bird scarers and of course the Model.

I was left with several lessons learned (so it was obviously a good project with impact) - the main one being that if you carry a big fish around for a week, it

(and you) smell. I was also left with two lasting joys: a name that I have happily Hashed under ever since (Madame Tall), and the ability to converse with Eric in fluent Penguin - a skill known to very few.

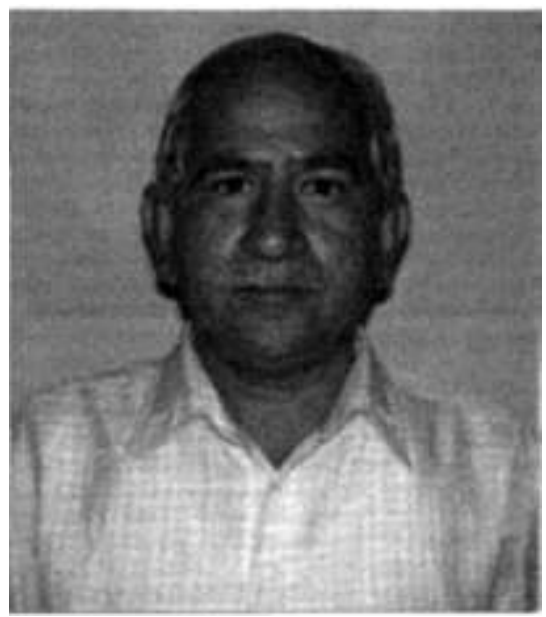
The fun days were frequent as time went on at ICRISAT, but those who did make space to enjoy them certainly remember the 'Good Old Days' back in the dark ages when Christmas parties were held at Kaliva complete with Santa and home-made marshmallows!

Murli Sharma, *Visitors Services Officer*

When I was working for the agroforestry project in about 1985, a very senior visitor came to see our work. His two junior staff accompanied him. All of them stayed at the campus. He appeared very uncomfortable when he noticed that his staff were given the same type of accommodation that was assigned to him. His first question to me was 'You don't have separate accommodation for these fellows?' I explained that we did not. After a field trip we went for tea with his staff, all to the same place. Again he appeared agitated and asked, 'You don't have separate place for tea for these people?' Again I had to answer in the negative. Later, the gentleman excused himself to go to the washroom. He came back very confused because he encountered one of his assistants there. 'You don't have separate facilities for officers?' Yet again I had to say no.

By now it was my turn to be uncomfortable, as my distinguished visitor was talking less of science and more of our 'different' system. During lunchtime again the same problem! I took our guest and his assistants to the canteen, and got the expected question, 'You don't have a separate canteen for officers?' By this time I was terrified to say NO yet again, and to my good fortune I didn't have to, because right then, as if on cue, Director General Swindale entered the canteen.

This, to me, was nothing less than a heaven-sent opportunity to impress my visitor about 'the ICRISAT system'. Dr Swindale was waiting patiently in the



Murli Sharma.

queue behind three khaki-dressed RWFs. I quickly grabbed the opportunity and said, The person standing behind the three workers is our Director General.' I think my guest forgot eating, seeing our boss treated like any other staff. Dr Swindale picked up his food, paid at the cash counter, and looked for a place to sit down (another surprise for our guest - no special reserved table for the DG). Maybe Dr Swindale had telepathic powers in those days, because I was thinking *if he sits with the RWFs it will save my day*- and to my everlasting joy, he did!

I got no more questions from our guest, then or later. Dr Swindale never knew how much trouble he saved me!

History repeats itself! After the formal addresses on the occasion of JS Kanwar's farewell in, YL Nene proposed a standing ovation in his honor. He said, 'Let us all stand and clap as long as you wish.' Such was Dr Kanwar's stature in the eyes of the staff that everybody clapped for so long that finally Dr Nene had to raise his hand to put an end to the tumult!

A parallel occurrence was seen at Bhopal in September 2002, when ICRISAT organized its first ever Farmer Day outside its Patancheru campus. Dr AK Mishra, Indian Institute of Soil Science, proposed a standing ovation for **the** Director General Dar. He said, 'Let us all thank Dr Dar by standing and clapping for him in such a warm gesture that he will remember his visit to Bhopal forever.' The farmers and staff of both IISS and ICRISAT clapped so long that Dr Mishra, like Dr Nene many years earlier, had to raise his hand to restore order.

JS Kanwar, *Deputy Director General Emeritus*

I had a perfect working relationship with Dr Swindale. He brought the money and I spent it.

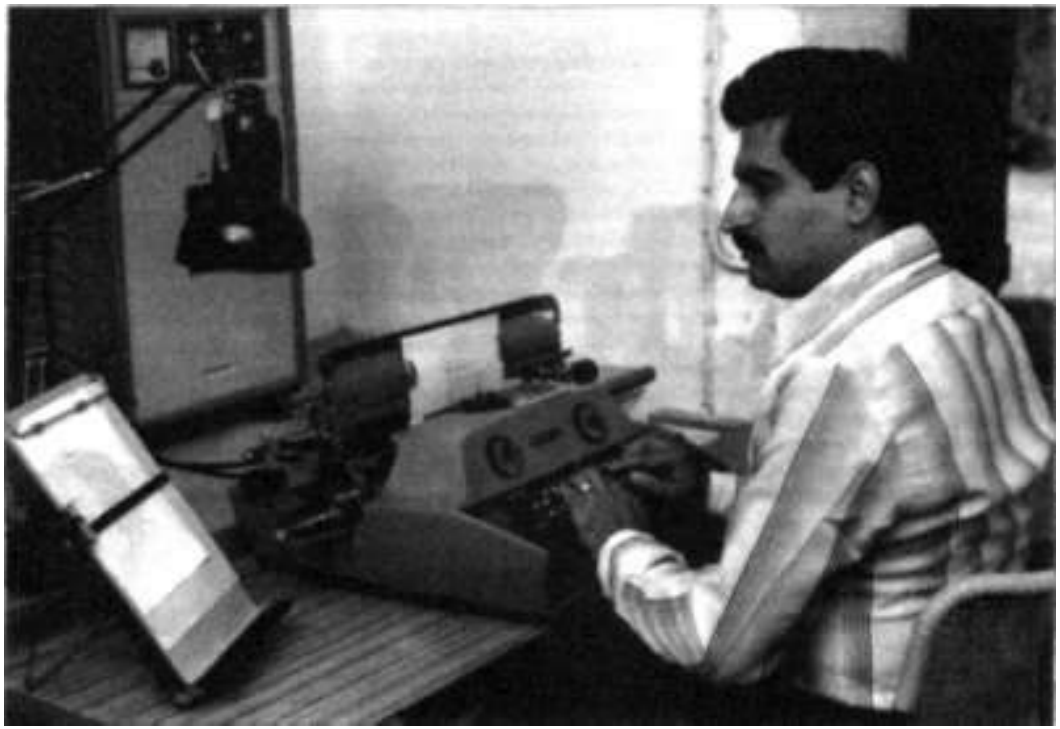
TR Kapoor, *Senior Manager, Publishing and Media Services*

Information Services, ca 1979.

It all began in 1974 when my former employer sent me to Hyderabad to install some equipment for ICRISAT. I didn't knov it at the time, but the trip laid the foundatio of a 28-year association with the institute.

I completed the work and was ready to leave, but fate had other plans for me. The then head of Information Services, Mr Earl Lawrence, offered me a job.

It would be the ideal place for a technical person like you, he urged. Coming to Hyderabad didn't seem so interesting then. But he was persistent and three months later I was part of the ICRISAT family. How can I forget 14 May 1975? That was the day I joined Information Services, which at that time was located in a small and picturesque location on Road 12, Banjara Hills. We finally came to the sprawling campus of Patancheru in 1978.



TR Kapoor composing ICRISATs first newsletter on a VariTyper Film Composer.

After having worked under Mr Lawrence, there followed a succession of bosses - Spaven, Bengston, Thompson, Fuccillo, Wills, Eaglesfield, Hainsworth, Winslow, and finally McGaw. Each one lent a novel dimension to the job. As the heads changed, so did the name of our unit - from IS to IMEP to PIM to IRMP and finally to PAO.

My personal life too underwent a metamorphosis when I met Nilu, one of my IS colleagues. She was a Parsee, I was a Hindu. It took five years of coaxing, but her family finally said yes.

Twenty-eight years of tight schedules, deadlines, late nights and weekends on the campus have remained unchanged. The workload has never decreased. It's always a race against time in this profession. But we wouldn't have it any other way. The years have seen ups and downs but work at ICRISAT never stopped.

And now with the efforts of Dr Dar, public awareness of ICRISATs work is greater than ever, and soon we'll proudly compare this decade to the eighties, the golden era at ICRISAT.

Our lyricists

ICRISAT staff have always exhibited a flare for the arts - literature, drama, photography, painting and so on. Here are some examples of poetry composed by ICRISAT staff at various occasions.

This poem was written by a senior accountant with the ICRISAT program in Zimbabwe. It reflects her impressions of India when she visited ICRISAT Center in September 1993.

Irene Christa Tapela.

INDIA

India, India, oh! What organized chaos
So many people, so much traffic
So romantic and yet so tragic

What a country, what a people
Colorful in clothing, soft spoken
Women so beautiful and graceful
Children so small and lovely

In the shops you want to buy just one thing
The attendant will bring down everything
Not just everything but everything that is lovely
Yet there is beauty and loveliness in India
In the Hotels you want food
No spices please you state
Yes Madam, no spices for you.

Come chicken masala and it's all hot
Spices, spices, cooking is no cooking
Without spices without seasoning

Oh! For the sun of India
That comes out ever so bright and hot
Early in the morning it's so hot
In the noon it will rain
Not just the showers of blessing
But torrents of rain which sometimes sweep lives away

Now comes the worst tragedy
Of course it can happen anywhere
But it has to happen in India
To complete a story of India

India you are so beautiful and you can be so melancholy
The blood of your people was shed
Their tears together with the rains washed it away
When on 30 September you shook so violently
And swallowed almost all that was in Maharashtra

Even now you still threaten your people
Nobody can ask you why, nobody can demand justification
Only you know why it has to happen
All we can hope for is your leniency

- Irene Christa Tapela

P Suryanaryana.

NSP Rao.

A senior staff member, P Suryanarayana, who served the Cooperative Society as Director for several years, had the following to say on the Society's 15th Anniversary in 1993.

Society, Salutations to Thee!!
The clock on the Wall
The TV in the Central Hall;
The Refrigerator in the Kitchen,
The mixie and the washing machine;
The pure water from the water-filter,
The cool breeze from the air-cooler,
Are acquisitions to name a few
Are acquired through you;
Salutations to thee, my Society
For delivering things of all Variety;
Though things may perish,
Your service I will ever cherish!!

The late NSP Rao, Resident Medical Officer from 1979 to 1998, on the occasion of the farewell function to Dr and Mrs Swindale by the campus residents, also composed a memorable song. Unfortunately, the words have been lost.

Excellence at ICRISAT

ICRISAT has been always at the forefront of scientific excellence, as evidenced by the numerous awards with which its staff have been recognized over the years. The list below is not exhaustive and includes only some of the more important achievements.

1990

- William Mashler, Chairman of the Governing Board - President's Medal of the City University of New York
- Claude Charreau, Member of the Governing Board - Chevalier de l'ordre de la Legion d'honneur by the Government of France
- YL Nene, Deputy Director General - election as Fellow of the American Phytopathological Society
- Lee House, Executive Director, SADC/ICRISAT Sorghum and Millet Improvement Program - International Agronomy Award by The American *Society Agronomy*

1991

- LD Swindale, Director General - Padma Bhushan by the President of India; and the Golden Ciwara (Grand Cultivator) by the Government of Mali
- YL Nene - Honorary Doctorate of Science by GB Pant University of Agriculture and Technology
- Vartan Guiragossain, Sorghum Breeder - Meritorious Award from OAU-SAFGRAD, Kenya
- R Bandopadhyay, Entomologist - Second Annual Frosty Hill Fellowship at Cornell University

YL Nene receiving Omprakash Bhasin Award from Prime Minister PV Narasimha Rao.

Mashler Award presented to the pearl millet team, 1996.

- Donald H Smith, Pathologist - First Coyt T Wilson Distinguished Service Award by the American Peanut Research and Education Society

1992

- YL Nene - Shri Omprakash Bhasin Award for Science and technology for 1991

1993

- RP Takhur, Pathologist - election as Fellow the of American Phytopathological Society
- LJ Haravu, Head Librarian - Librarian of the Year award by The Indian Association of Special Libraries and Information Centres
- CF Bentley, Chairman of the Governing Board - The Order of Canada, the highest honor of the Canadian Government
- MS Swaminathan, Member of the Governing Board - 1994 Sasakawa Environment prize by UNEP

1994

- The first Doreen Margaret Mashler Award for Scientific Excellence to the joint ICRISAT-NARS team with special attention to downy mildew resistance in pearl millet

1996

- King Baudouin Award to ICRISAT for its contribution to pearl millet research
- SB Sharma - CGIAR Chairman's Science Award for a nationally recruited scientist

1997

- AK Singh - CGIAR Chairman's Science Award for a nationally recruited scientist
- CLL Gowda - Vietnamese Medal of Agricultural and Rural Development
- The IPM Team led by GV Ranga Rao - Doreen Margaret Mashler Award

1998

- Second King Baudouin Award to ICRISAT for its contribution to pigeonpea research
- KN Rai - CGIAR Chairman's Science Award

1999

- KB Saxena and LJ Reddy - Golden Love Ball Award from Guanxi Province, China
- Eric Manyasa, EARCAL, Kenya - Millennium Science Award for Best Supporting Staff, ICRISAT

2000

- HC Sharma - CGIAR Chairman's Science Award

2001

- K Anand Kumar - Decoration by the Government of Niger
- Jagdish Kumar - Gold medal from ANGRAU
- V Balaji - World Technology Prize
- KB Saxena - Friendship Award, China's highest civilian award for his work on pigeonpea

2002

- William D Dar - Symbol of Excellence for R&D Management given by the Philippines Council for Agriculture, Forestry, and Natural Resources Research and Development (PCARRD)
- SN Nigam - Medal for Agriculture and Rural Development from the Government of Vietnam
- SP Wani and A Ramakrishna - Medal for Agriculture and Rural Development from the Government of Vietnam
- Third King Baudouin Award for excellence in chickpea improvement, in partnership with ICARDA

KB Saxena receiving China's highest award for civilians, the Friendship Award. The citation cited Saxena for his 'contributions and dedication to the training of Chinese personnel, as well as to China's social development and economic, scientific, technological, educational, and cultural construction.'

ICRISAT Hat Trick: three King Baudouin Awards!

1996: Director General Jim Ryan accepting the first King Baudouin Award from TAC Chair Don Winkelman for excellence in pearl millet improvement.

The King Baudouin Award
of the Consultative Group on
International Agricultural Research

The International Crops
Research Institute
for the Semi-Arid Tropics—ICRISAT

1998: Director General Shawki Bargouti accepting the award for excellence in pigeonpea research from CGIAR Chairman Ismail Serageldin.

The King Baudouin Award
of the Consultative Group on International
Agricultural Research

The International Crops Research Institute
for the Semi-Arid Tropics
(ICRISAT)

The King Baudouin Award

2002: Director General William Dar and Jagdish Kumar accepting the award for excellence in chickpea research from CGIAR Chairman Ian Johnson.

May 2001: Grey To Green Revolution

ICRISAT's 2001 Annual Report, entitled *Grey to Green Revolution,* was launched during the CGIAR's Mid-Term Meeting in Durban. The idea behind the theme was that while the Green Revolution had remarkable impact on agricultural productivity in the developing world, it depended on high levels of costly inputs. The Grey to Green way, in contrast, is all about making better use of locally available, affordable resources, complemented by modest but practical interventions. The idea is to help the poor put their own resources to better use so they can grow their own way out of poverty. The Grey to Green Revolution is about empowerment of the poor of the dry tropics.

Greening ICRISAT-Patancheru

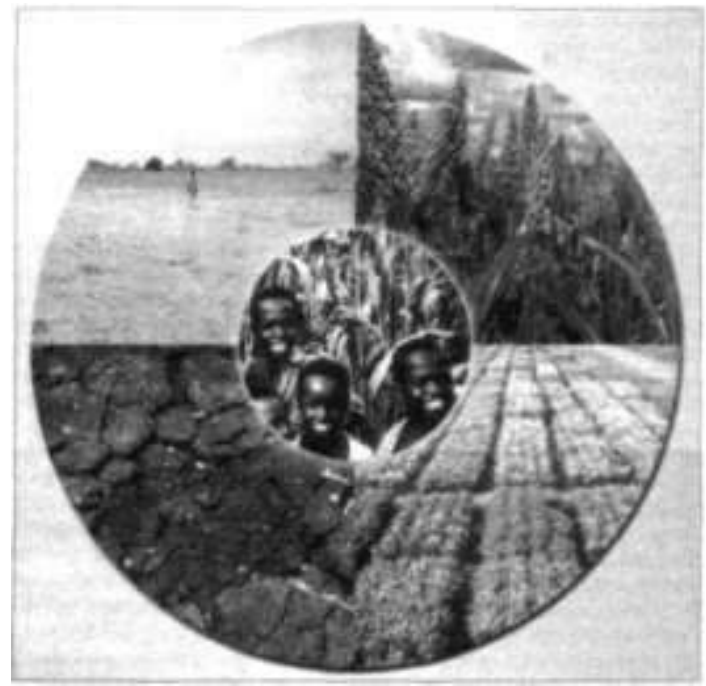
Credit for the greening of the Patancheru campus is due largely to Betty Dar. A former senior member of the Department of Environment and Natural Resources in the Philippines, Betty's heart is in forestry. When she first visited the Patancheru campus, she saw vast opportunities for improvement. The result? Nearly 200 hectares of trees planted by staff, management, the Governing Board, and visitors, with promises of sylvan serenity in a few years. Thank you, Betty!

Plant a tree, all by yourself - in fact, I urge you to dig the pit with your own hands, and take good care of the tree till it can fend for itself. As we enter the new millennium, plant a sapling that will one day bear testimony to your care in the future.

William Dar

Today's tree planting is a good initiative that provides the best starting point to transform the idea of Grey to Green into tangible action. 'Vruksho rakshathi rakshit aha' means 'Protect the trees, they will protect you.'

M Prabakar Reddy



Betty Dar looks on as a tree is planted.

Team ICRISAT

The Team ICRISAT movement successfully combines employee attributes and core values of the institute to support the institute's mission, enhance efficiency and effectiveness, and boost morale. In the short period since its launch on 13 February 2002, the movement has had a positive and welcome impact on camaraderie and team spirit of the staff, and has resulted in better productivity.

Director General Dar taking the pledge.

The following is one example of the power of Team ICRISAT: *Parthenium hysterophorus,* a widespread weed in India, was inadvertently imported from the USA with a wheat consignment in the 60s. During the 2002 cropping season, parthenium was everywhere, and the field laborers just couldn't keep up with it. Millet Breeder Tom Hash needed more hands than just the laborers' to remove this menace.

Enter B Ramaiah, who suggested recruiting Team ICRISAT to fight the scourge. Director General Dar immediately embraced the idea. Collective action could be brought to bear to fight a palpable and devastating enemy, and simultaneously promote team spirit. On 6 September 2002, all the staff at Patancheru - from the Director General and his wife to farm workers, from kitchen staff to finance officers, from lab assistants to senior scientists - everyone - got down and dirty to uproot parthenium, the first ever such joint action in the history of

ICRISAT (see picture on page 79). We knew that we wouldn't completely eliminate weeds, but by such action we can bring it to a manageable level. Thank you, Dr Hash and Mr Ramaiah, you have shown us what the collective strength of Team ICRISAT can do!

Team ICRISAT.

Looking ahead: science with a human face

Despite manifold challenges, ICRISAT marches ahead confidently into the new millennium with renewed vision and vigor. The new thrust is on using the power of technology for increasing food productivity, food security, poverty alleviation and environmental protection. The new mantra is *science with a human face.*

Director General William Dar introduced the phrase during his first speech to staff upon his arrival in January 2000. He meant it as a metaphor to capture ICRISATs new vision - our work must directly benefit the lives of the poorest of the poor.

To identify a new icon for use on all ICRISAT publications and other public awareness media, ICRISAT conducted a contest. The Icon Committee finally recommended the winning entry, and this was endorsed by the Director General.

ICRISAT Vision and Strategy to 2010

Challenges and Issues for the Semi-Arid Tropics is the title of the Institute's new vision and strategy document, approved by the Governing Board in October 2001. The document essentially identifies emerging challenges and issues of the semi-arid tropics, scans the changing agricultural research environment, and maps out our new vision, mission and mandate from which are drawn out six global research themes and corresponding deliverables.

ICRISATs vision and strategy is built around the 'WEHAB' acronym developed for the World Summit on Sustainable Development at Johannesburg in August 2002. WEHAB stands for water, energy, health, agriculture, biodiversity. Because ICRISAT is focused on the semi-arid tropics where water is the primary constraint, water is central to the research agenda. ICRISAT will have a particular emphasis on Africa, where 300 million poor people struggle against the odds. ICRISAT will work closely with the New Partnership for African Development (NEPAD), a movement recently launched by African leaders.

Science with Human Face

The new icon reflects three themes associated with *Science with a Human Face.*

- Both global and human forms to indicate ICRISATs responsibility as a global organization focused on helping people.
- A warm human image cradling the ICRISAT logo in hand, reflecting ICRISAT as an asset of humanity to be treasured.
- Representations of both water and soil, reminding us of the centrality of water and land as both constraints and opportunities for progress.

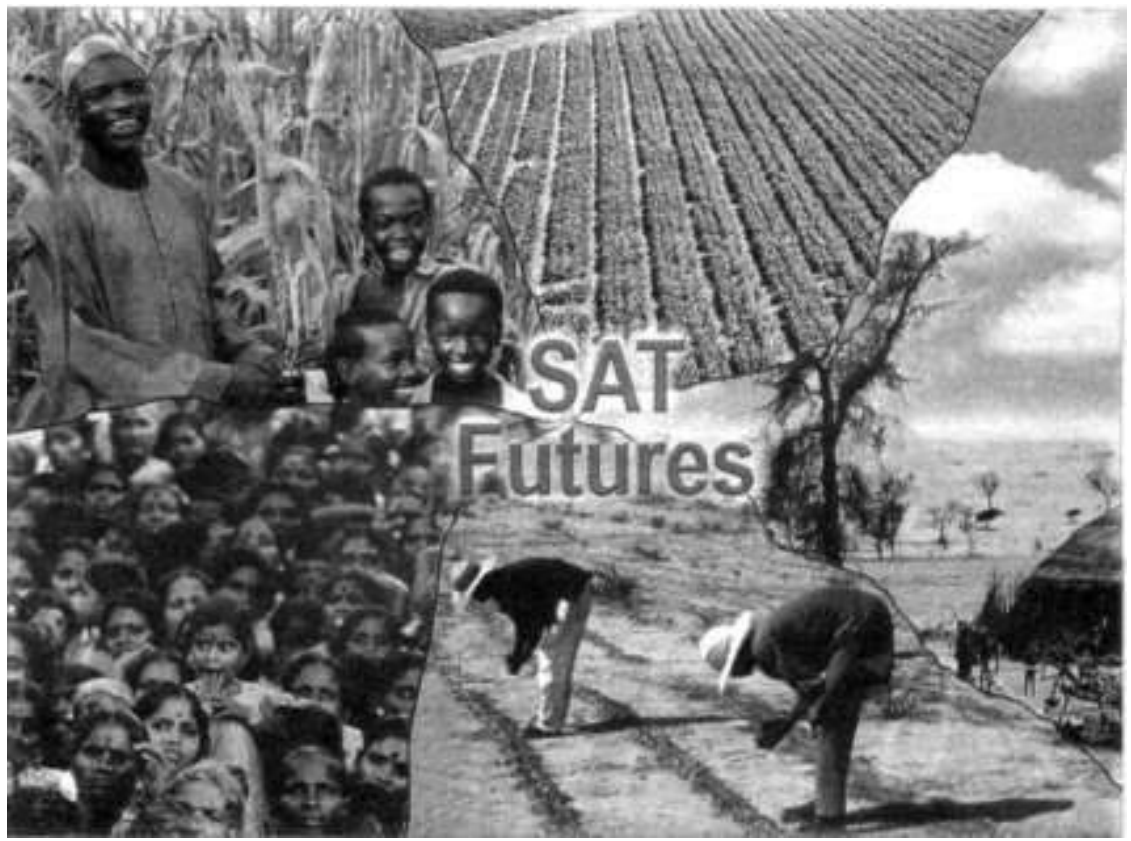
This book is about people - people whose vision brought the institute to life, people who helped ICRISAT grow into a fine center of excellence, people who gave their best, people who will now guide the institute into the new millennium.

The theme for Annual Day 2002 is *Building a Strong ICRISAT for a Food-secure SAT.*

The three strategic initiatives, which will serve as pillars for a strong ICRISAT, are:

1. strengthening research, broadening partnerships, and developing an impact culture at the Institute;
2. human and institutional capacity building; and
3. enhancing our financial resources.

History will tell whether ICRISAT achieved its mission in alleviating poverty, increasing agricultural productivity and food security, and protecting the environment. As long as the ICRISAT family has confidence in the institute's vision and mission, the noblest of goals will have been achieved - and the lives of millions of the poorest of the poor will have been changed forever.



Postscript

ICRISAT was the fifth international agricultural research institute and the first one sponsored by the CGIAR. The first four institutes had rather good agro-climates and, initially at least, rather narrow responsibilities. ICRISAT's task was not easy. Globally there had been rather little agricultural research in tropical semi-arid areas. Most land suited for arable agriculture was already in use. The rather low density of people in semi-arid areas was a disadvantage. It might be difficult to attract foreign agricultural research scientists to work in such difficult settings.

Annual Day 2001: inaugurating the C Fred Bentley Conference Center (formerly 212 Conference Center).

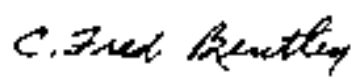
Over the last 30 years ICRISAT's achievements have been remarkable. On the black soils where for two thousand years only one crop per year had been produced, a cropping system producing two crops a year has been developed. There had been rather little previous research on pigeonpeas. Today, in India, pigeonpeas are a much more important crop, thanks to ICRISAT research. That has resulted in pigeonpeas becoming an important new grain crop in Australia. Similarly, thanks to ICRISAT research, chickpea production in India is now more important and in Canada chickpea is a very important new crop.

ICRISAT's ecoregional mandate, the semi-arid tropics, is global. So it is not surprising that the broadbed-and-furrow cropping practice on heavy clay soils developed at ICRISAT Center in India was adopted on similar soils in Ethiopia. Soon after that cropping system was also adopted on some heavy clay soils in Zimbabwe.

ICRISATs most important role in Africa has been in sub-Saharan countries such as Niger, Burkino Faso and Mali where African farmers have profited from ICRISAT research. At ICRISATs Sadore research station, the item of greatest interest to farmers attending the first field day was intercropping with alternate rows of cowpeas and pearl millet - two food grains produced simultaneously instead of the traditional sole crop of pearl millet grown year after year. To the surprise of the researhers the reason for such keen interest in that display was that cowpea residue made superlative feed for livestock! Currently ICRISAT's numerous activities in widely separated locations in Africa include close cooperation with ordinary farmers on their farms. That remarkable success has resulted in the ICRISAT slogan 'from grey to green'.

Unfortunately, farmer adoption of new crop cultivars or improved production methods is often discouragingly slow. Globally that has adversely affected financial support for agricultural research. In India during the past 30 years farmer adoption of outputs of agricultural research by many agencies, including ICRISAT, has brought about improvements in food production and nutrition without significantly increasing the area farmed. Meanwhile, India's population has doubled from 500 million to one billion since 1970.

It is unfortunate that financial support for ICRISAT is not greater. The institute has clearly demonstrated that the resources with which it has been provided have been put to the best possible use. Enormous benefits to small farmers, the environment and the economies of the world's poorest countries are directly attributable to ICRISATs research.



C Fred Bentley
November 2002

DISCLAIMER

The contents of this book are a collection of memories - some rusty, some perhaps influenced by personal interpretations, which do not necessarily reflect the views of the institute. Although every effort has been made to obtain facts and verify the accuracy of dates and other statistical information, neither the ASK group, nor the staff and management of ICRISAT can be held responsible for statements deemed erroneous. We accepted the memories of the contributors in good faith. If an account printed here causes guilt or embarrassment, annoyance or hurt, please be assured that the offence is completely unintentional.

We hope you have enjoyed reading the book, which remains throughout as memories of a family bound together by a common goal.

Appendix I

Chairs, Governing Board

1. C Fred Bentley, 1972-82
2. John Dillon, 1982-86
3. FV MacHardy, 1986-89
4. William T Mashler, 1989-92
5. Eric Roberts, 1992-96
6. Hans-Jurgen von Maydell, 1996-97
7. RS Paroda, 1997-98
8. Ragnhild Sohlberg, 1998-2001
9. Martha Stone, 2001-

Directors General

1. Ralph W Cummings, 1972-77
2. Leslie D Swindale, 1977-91
3. James G Ryan, 1991-97
4. Shawki Barghouti, 1997-99
   Leslie D Swindale (Interim), 1999
5. William D Dar, 2000-

Appendix II

Abbreviations

AGLN	Asian Grain Legume network
ASK	Agri-Science Knowledge Resource Group
BHEL	Bharat Heavy Electrical Limited
CAAS	Chinese Academy of Agricultural Science
CCRN	Cooperative Cereal Research Network
CGIAR	Consultative Group on International Agricultural Research
CIAT	Centro Internacional de Agicultura Tropical
CIDA	Canadian International Development Agency
CIMMYT	Centro Internacional de Mejoramiento de Maiz y Trigo
CLAIS	Comisi6n latinoamericano de investigadores en sorgo
CLAN	Cereal Legume Asian Network
CRIDA	Central Research Institute for Dryland Agriculture
FAO	Food and Agricultural Organization of the United Nations
FDC	Farm Development Committee
FDO	Farm Development Operations
FRC	Farm Research Committee
IAS	Indian Administrative Service
IBPGR	International Board for Plant Genetic Resources (now IPGRI)
ICAR	Indian Council of Agricultural Research
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDRC	International Development Research Institute
IITA	International Institute for Tropical Agriculture
ILRI	International Livestock Research Institute
INRAN	Institut national de recherches agronomique du Niger
INTSORMIL	USAID Title XII CRSP on Sorghum and Pearl Millet
IPGRI	International Plant Genetic Resources Institute
IPM	integrated pest management
IRRI	International Rice Research Institute
ISC	ICRISAT Sahelian Center
LASIP	Latin American Sorghum Improvement Program
Legoften	Legume On farm Testing and Nursery
NARS	national agricultural research system
SADC	Southern African Development Community
SADDC	Southern African Development Coordination Conference
SAFGRAD	Semi-Arid Food Grain Research and Development
SAT	semi-arid tropics
SMIP	Sorghum and Millet Improvement Program
TAC	Technical Advisory Committee
TAFP	Training and Fellowship Program
UNDP	United Nations Development Programme
UNEP	United nations Environment Programme
USAID	United States Agency for International Development
WASIP	Western African Sorghum Improvement Program
QQR	Quinquinial Review

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Inside ICRISAT

ICRISAT Happenings

SAT News

ICRISAT into the New Millennium

CGIAR 25 Years Annual Report, 1971-1996

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ICRISAT Vision & Strategy to 2010

ICRISAT's Konark Wheel

ICRISAT Anew

Indian Prime Minister's Visit to ICRISAT Center - August 1992

ICRISAT Annual Day Brochures

ICRISAT in the Media

Historic Relics at ICRISAT Center

Less Poverty, More Growth

ICRISAT Association for Community Development - IACD

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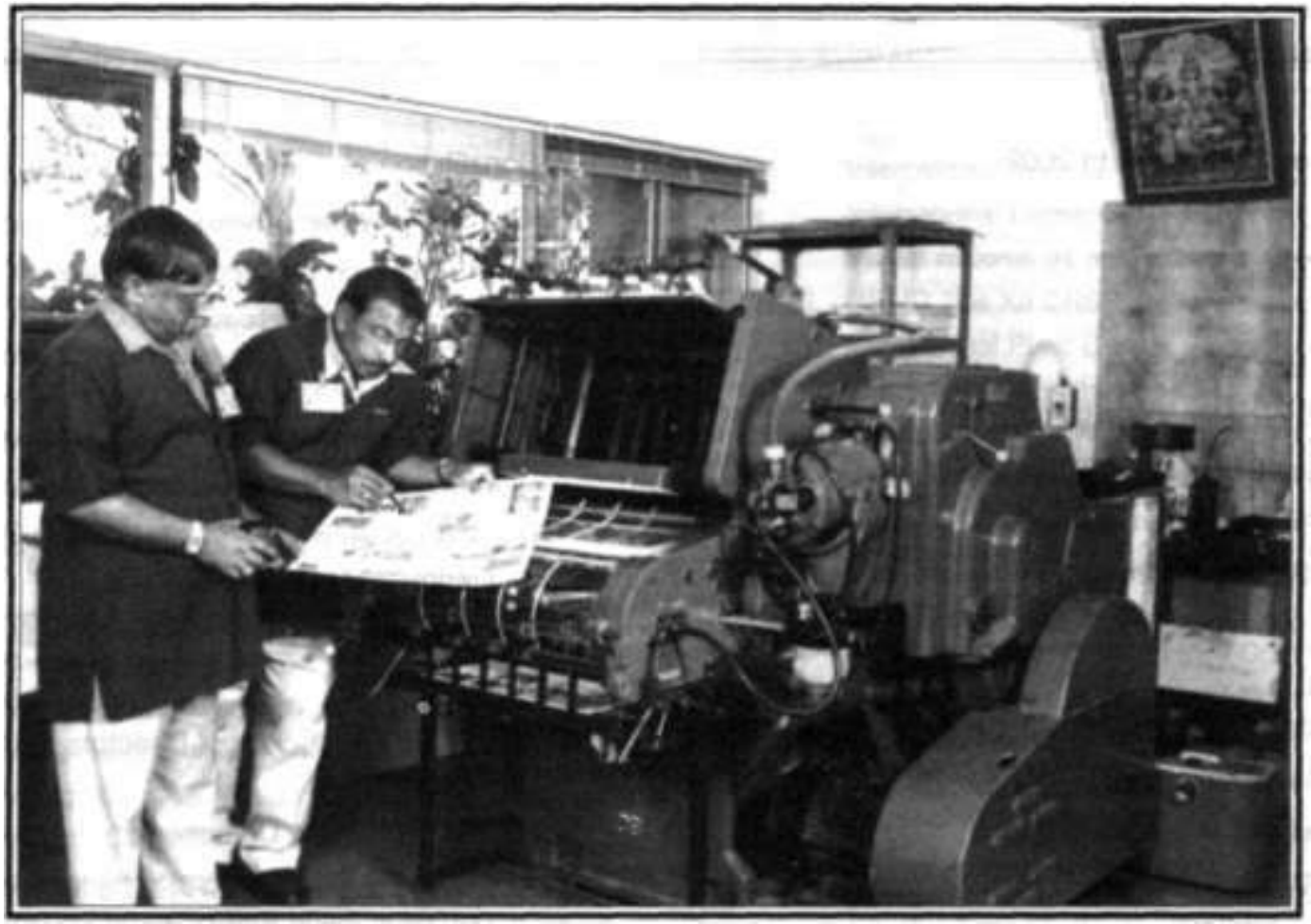

This model of the Heidelberg offset printing machine dates back to the mid 1960s, but ICRISAT acquired it in 1978. The Heidelberg is therefore the same age or even older than the institute! Hence our decision to print this book on this very machine. What better way to honor the men and the machine that have printed so many ICRISAT Publications over the last three decades? Above, G Devi Kumar and D Chandramohan operate their trusty Heidelberg.

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