

# Talent identification in Indonesia:

## A model for other countries?

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*Within the context of a joint venture known as the German-Indonesian Sport Project, which started in April 2003, the author worked to develop an athletics talent identification system that corresponds closely with the realities in the rural provinces of the country, in particular the lack of scientific and financial resources. In this report, which has been adapted from a booklet on the project, he provides the background to the project, a description of the development and implementation of the strategy to date, and an overview of the next phase of the project. The description includes detail of assessment criteria and seven test exercises. The author emphasises that these have been selected for their appropriateness for use in situations where resources for sport are limited, such as are found in most developing countries. The report also contains recommendations for the long-term development of Indonesia's sports promotion system.*

### ABSTRACT

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national success yet the country has the region's lowest level of investment in education in general and sport in particular. In the case of athletics, Indonesia has gradually lost its former reputation as the "Southeast Asian Powerhouse" over the last 15 years. The country's decline in the most basic of sports was confirmed by a generally low standard of performance and reduced numbers of participating juniors at the 2004 National Sports Games in Palembang.

Neighbours like Thailand (with its excellent provincial scouting system and the 'National Sport School' in Bangkok), Malaysia (with the outstanding 'Bukit-Jalil' Centre) or Vietnam (with its professional network of talent centres) are determined to establish themselves in sport at the Asian and Olympic levels. But neither KONI (the Indonesian National Olympic Committee) nor the PASI (the athletic federation) of this giant country (220 million population) have been able to find suitable strategic and infrastructure solutions to the challenges posed by Indonesia's geography.

### Introduction

**I**n Indonesia, people might refer to sport with the phrase "situasi paradoks". Paradox, in the sense that the government faces tremendous performance improvements in neighbouring countries and publicly laments Indonesia's lack of inter-

The branches of the two bodies in the 32 provinces are far from being efficient while the PPLPs and the PPCMs (school and university sport centres) under the Ministry of Education and the Directorate for Sports is simply overwhelmed by the demands of supporting high performance training. Importantly, too many office holders believe in the “fairy tale” that a few national heroes and a laudable tradition in some sports will guarantee an automatic supply of talents when it is clear that in the rest of the world a scientific approach to talent identification and support is an essential element of sport development.

The most remarkable deficit is the lack of understanding of the causal relationship between the quality of school sport (i.e. physical education) and success in high performance sport. The school sport situation in Indonesia can be characterised by an average class size of 45-50 pupils; a lack of facilities, equipment, modern literature and an adequate curriculum; and zero chances for teachers to be upgraded. It is not surprising that few of the country's children are given a real opportunity to expose their motor potential.

How can one expect to detect sporting talents under such unfavourable conditions, especially in the rural areas where we can assume there are tremendous human resources?

The future of Indonesian sport in general, and athletics in particular, lays in the ability to develop school sports (at all three levels) and establish a simple but effective talent identification system. This paper is a report on an effort to create a system that corresponds closely with the realities in Indonesia, in particular the lack of scientific and financial resources in the rural areas. The project was carried out within the context of a joint venture known as the German-Indonesian Sport Project, which started in April 2003. While we are not claiming anything near perfection, the reader should see this as a suggestion for how a developing country's motor potential in athletics might be mobilised.

## The selection of Papua

One of the main challenges in the systematic development of sport in Indonesia is the country's geographic situation, in particular the many islands, remote communities and travel difficulties. Therefore, at an early stage of the project it was decided to follow a “snowball strategy” by creating a pilot programme or “model” in one province and then rolling it out to other provinces later.

The country's most easterly province, Papua, was chosen as the location for the model programme for a number of reasons. Due largely to its isolation from the capital Jakarta, Papua is somewhat out of the Indonesian mainstream and has never been a priority in policy planning. Historically, young people in the province have been given only limited opportunities by the country's sporting institutions and even today it does not appear as a priority in development plans. However, the people of Papua have an excellent anthropometric foundation for track and field as well as tremendous enthusiasm and motivation for sport. Thanks to their closeness to natural life, the absence of “super-entertainment” options and unspoiled physical resources, a motor potential that seems unmatched by the peoples of most of the country's other provinces has been maintained.

As Papua province currently faces questions regarding increased autonomy and separation from the rest of the country, the aims of the programme went beyond sport and included a socio-political dimension. The idea of our project was to provide a rare opportunity to integrate the youth from different regions into one programme and improve communication among various ethnic groups. Moreover, sport can enhance the social situation in general and opens avenues for the most talented individuals, thus contributing to the strength of individual personalities and building the confidence of a generation. Finally, the programme was seen as a chance to fulfil some of the rights of children – even in the most remote areas – as set out in the UN Charter.



Figure 1: Map of Papua with project districts

### Development and implementation of the strategy – Phase I

When facing such extraordinary conditions as we do in Papua, the design and implementation of a talent identification strategy is a methodological-didactical matter. The question of “what” should be implemented is much easier than the question of “how”. To detect and select athletic talent in developing countries is far from comparable with the sophisticated possibilities in the industrialised nations. In the absence of any scientific backing and with only limited funds, testing can only be organised on at most a basic level in countries like Indonesia while in more advanced countries the use of computerised lab and field tests together with the support of medical, biomechanical and psychological staff is common. Moreover, developing countries are obliged to concentrate their limited resources on finding potential in urban rather than rural areas. To our knowledge, ours is the first talent identification strategy designed to

reach even the most remote districts in a remote province.

The following design principles were deemed important:

- The system should be highly flexible and without any time pressure
- A strong framework of local partners should be established
- As many administrators, teachers and coaches as possible should be involved
- The number of participating children should be maximised (as a higher number gives a greater chance of finding the real talents)

Based in these, a six-step strategy as shown in Table 1 was developed.

Step I saw the creation of the general framework with the establishment of a ten-member ‘Organising Committee’ (see Figure 2), which included all the relevant sport institutions of the province, and a two-day work-

Table 1: 6-step strategy for the Papua Athletic Talent Identification System

STEP	EVENT	TARGETS	DURATION/FORM
I	Constitution of Talent ID – Organising Committee	Build-up a ‘board of provincial partners’: Dinas, KONI, PASI, Papua Dept Government = 10 persons	2 days – workshop (centralised)
II	Education of regional organisers	Introduction into talent – identification and test organisation = 43 persons	7 days – seminar (centralised)
III	Education of local teachers	Theoretical / practical introduction into testing = 450 testers	2 days – clinics (decentralised)
IV	Talent – Identification	Testing of minimum 4000 boys/ girls (aged 12 – 13 years) Pre-selection of ‘rough potential’ = 300 talents	Within 4 months (decentralised)
Period of Evaluation (tests) – final selection (150 – 180), design of a basic training programme for talented athletes			2 months
V	Education of specific “Talent ID Coaches”	Introduction of a 2-year ‘Basic Training’ Programme in the regions	14 days – coaching course including exam (centralised)
Period of Training - for the selected talents			2 – 3 months (decentralised)
VI	“Papua Cup” Competition (for identified talents)	A team competition (8 – boys/8 girls) in combined events	2 days (centralised)

shop. During this period the identification process and the test exercises (see below) to be used where finalised and confirmed.

Step II was a centralised introduction for local organisers (43 from the province’s 10 regions) to all aspects of talent identification and the organisation of the test through a seven-day seminar. They left with the task of recruiting the necessary number of testers (teachers), preparing the logistics and

instructing the schools in their respective regions.

As a part of the organiser’s “homework”, the recruited testers (503) received a theoretical and practical introduction into accurate testing (Step III) through two-day clinics in their regions. This decentralised education was strengthened by a practical rehearsal, a special video CD of the seven selected tests, a careful observation and pre-organisation of the test venue, and a check of the equipment available.

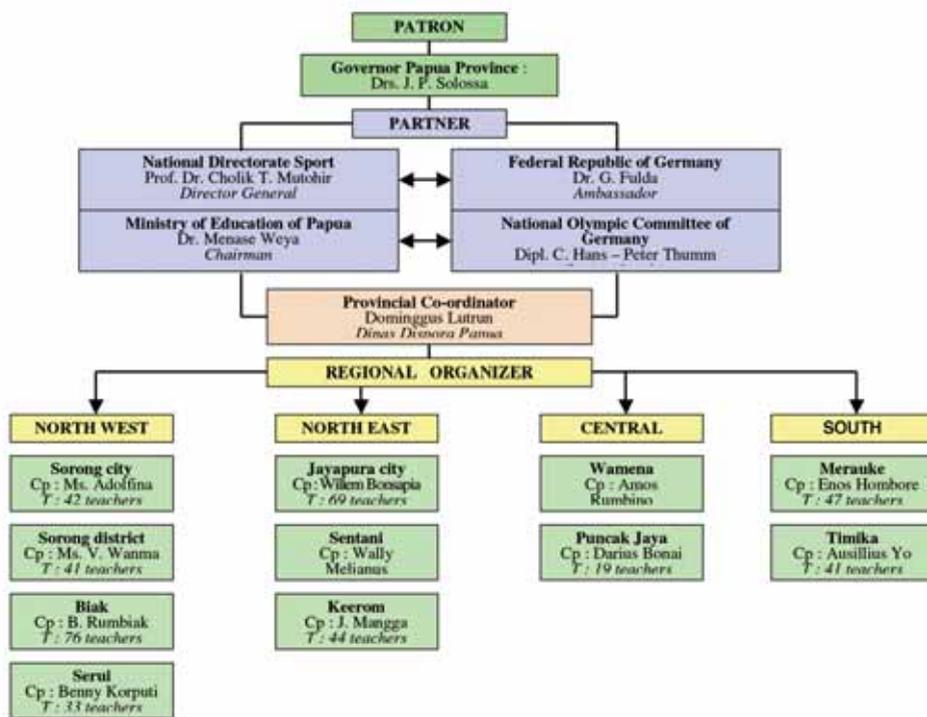


Figure 2: Organisation of the Papua Athletic Talent Identification System

The first phase of the strategy was concluded with Step IV, the talent identification operation itself. A total of 4,388 boys and girls aged 12-13 years were pre-selected from about 9,000 students at primary- and lower secondary school levels. Over five weeks the pre-selected children were assessed in nine venues (one region had to be excluded due its inability to prepare the test in time). In the end, 142 high-potential candidates were recommended to start the basic training programme (Step V).

## The identification process

Which instruments and criteria should be used in a country like Indonesia with limited scientific facilities, equipment and background in sports? Can we introduce a sophisticated, holistic system from a Western partner like Germany? If our target is the identification of talents in the rural areas of Papua, the answer is definitely no. Given circumstances (infrastructure, equipment, etc.) in developing countries, one cannot expect a test-battery to fulfil the scientific criteria of objectivity, reliability

and validity. Stable, comparable or standardised conditions will never exist in the rural areas of such countries. But this should not prevent us "borrowing" some fundamental aspects of motor ability assessment to create a simple but useful framework.

## Selection criteria

Despite numerous sport science research projects in this area, there are few internationally agreed methods and criteria for the diagnoses and prognosis of athletic talent. Against this background, we selected the following four primary criteria:

- 1) Prognosis of final body height, the most important constitutional or morphological aspect (as the position of the centre of mass plays an essential role in most athletic events from the biomechanical point of view and changes in the length of any body segment can alter the performance of certain skills)
- 2) Ability for speed, the dominant physiological-functional factor.

- 3) High level of elasticity (flexibility), as the best protection against injuries
- 4) Absence of orthopaedic anomalies (at spine, hip-knee-foot joints) or malfunctioning of joints, etc. that could become an obstacle for progressive loading.

Coordinative and sport related abilities together with psychological and academic indicators were added as “secondary aspects” (see Figure 3).

**Test exercises**

The set of test exercises shown in Table 2 were used. The specific tests were selected because of their close relationship to the selection criteria outlined above and because they indicate a suitable combination of athletic related aspects and fitness.

Note: All exercises were demonstrated in a video CD available for to all schools in Papua province.

**Grading and assessment**

We do not claim that tests or the ‘test-chart’ introduced here (Figure 4) are perfect, but they have proved to be very practicable in Papua.

There is room for improvement and the points that should be reviewed in the future include:

- Instead of giving girls a general bonus of 5 points, a grading scale that is different from that used for the boys should be developed. Moreover, the grading system should be developed to take age differences within the group (12-13 years) into consideration.
- The elements of Test 2 (Macro Coordination) should be modified in order to allow a more objective assessment by teachers.
- Test 7 (Aerobic Capacity) could be extended to 1000m (boys) and 800m (girls) respectively.

With regard to the assessment, children classified as Category “A” (58-70 pts) can be considered as having “high motor potential” straight away. Children in Category “B” (45-57 pts) will be characterised by extreme differences between their strong and weak abilities and must therefore to be examined very carefully with regard to special motor tendencies. Children in Category “C” (0-44 pts) can be described as “not suitable for high-level athletics” but could still be considered by other sports.

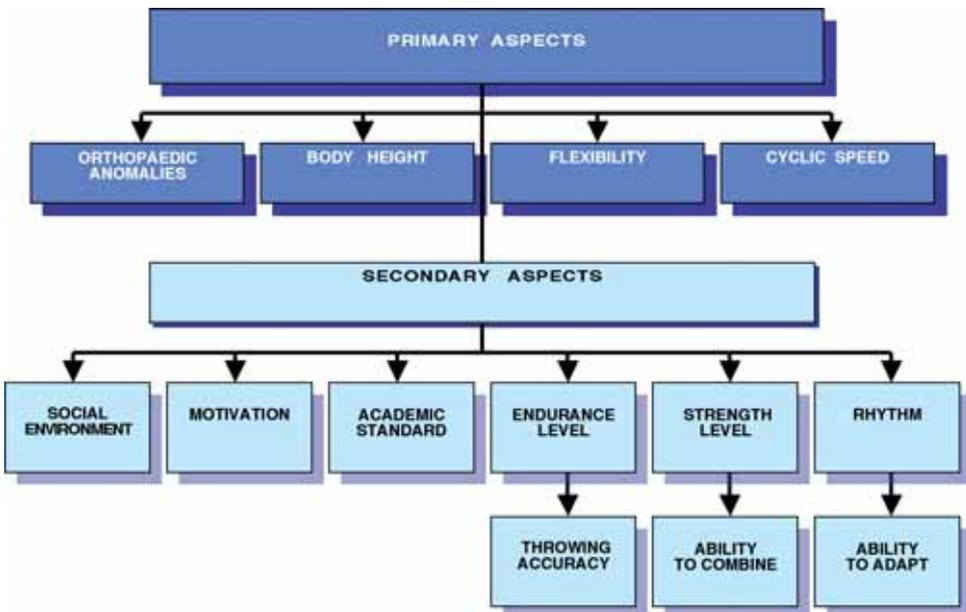


Figure 3: Criteria for identification of talents in the Papua Athletic Talent Identification System

Table 2: Test exercises used in the Papua Athletic Talent Identification System

TEST EXERCISE		CRITERIA ASSESSED
1	<p><b>Glide Test</b> Athlete has contact with a wall (head, shoulders, and hip):</p> <ol style="list-style-type: none"> <li>measurement of body-height</li> <li>gliding downwards along a fixed tape without losing contact</li> <li>"Stop", when heels start to move up</li> <li>measure difference between height and new position</li> </ol>	General flexibility
2	<p><b>Gymnastic Test</b> Athlete gripping a shoulder-high bar with both hands:</p> <ol style="list-style-type: none"> <li>swing up legs, then body forward-upward over the bar</li> <li>dropping down – rolling forward – rolling backward on mats</li> </ol>	Macro coordination
3	<p><b>40m Sprint</b> Athlete in "high-start" position:</p> <ol style="list-style-type: none"> <li>Start following acoustic (gun, whistle) or visual (flag) signal</li> <li>Keeping time by crossing 40m final line</li> </ol>	Speed and acceleration
4	<p><b>Ball Throw</b> Athlete behind 'throwing line' (8m distance from a hanging hoop/1.50m high, 70cm diameter):</p> <ol style="list-style-type: none"> <li>5 throws with tennis balls</li> <li>points according "goals" achieved</li> </ol>	Throwing movement accuracy
5	<p><b>Jump and Reach (2 attempts)</b></p> <ol style="list-style-type: none"> <li>Athletes' maximum finger reach is measured (3m-tape on wall)</li> <li>jump from 90-120° position – touching wall</li> <li>fixing height of finger print (finger whitened with chalk)</li> <li>measure difference between reach and finger print after jump</li> </ol>	Vertical power
6	<p><b>Frog Jumps (2 attempts)</b> Athlete in parallel feet position behind a starting line:</p> <ol style="list-style-type: none"> <li>3 successive "frog-jumps" forward into a sand pit</li> <li>measure total distance from line to last heel-position</li> </ol>	Horizontal power
7	<p><b>800m (boys)/600m (girls)</b> Start according to track length.</p> <ol style="list-style-type: none"> <li>Starting in groups of 15-20 athletes</li> <li>Keeping time by crossing final line</li> </ol> <p>Note: This should always be the final test exercise</p>	Aerobic endurance

TEST CHART													
Name of School : .....			Region : .....			Boys <input type="text"/>		Girls <input type="text"/>		Test Date <input type="text"/>			
Name : .....			Date of Birth <input type="text"/>		Weight <input type="text"/>		Height <input type="text"/>						
Address : .....													
EXERCISE	OBJECTIVES	NO	GRADING										SCORE
			1	2	3	4	5	6	7	8	9	10	
1. Glide Test	General Flexibility	1	Under 13	13	14	15-16	17-18	19-20	21-22	23-24	25-27	Over 28	
2. Floor Exercise / gymnastic Artistic	Macro Coordination	1	Average ( Only one role )				Good ( Two roles )			Very Good ( complete )			
3. 40m Sprints	Speed (Acceleration)	1	7.2 – 7.1	7.0 – 6.9	6.8 – 6.7	6.6 – 6.5	6.4 – 6.3	6.2 – 6.1	6.0 – 5.9	5.8 – 5.7	5.6 – 5.5	5.4 – 5.3	
4. Ball Throw	Throwing (Accuracy)	5	1			2				3	4	5	
5. Jump and reach	Vertical Power (Explosive)	2	22	24	26	28	30	33	36	39	42	45	
6. Lompat Jauh Berdiri (dengan dua kaki bersamaan)	Horizontal Power	2	4.75+	5.00+	5.25+	5.50+	5.75+	6.00+	6.25+	6.50+	6.75+	7.00+	
7. 800m (boys) 600m (girls)	General Aerobic Endurance	1	3:14	3:10	3:06	3:02	2:58	2:54	2:50	2:44	2:38	2:32	
			2:36	2:32	2:28	2:24	2:20	2:16	2:12	2:08	2:04	1:59	
KATEGORI <input type="text"/>			A. (58 – 70 points) = Selected				Remark :				Total Score		
<input type="text"/>			B. (45 – 57 points) = Considered (Re-Test)				Starting a test minimum 1 point is given. Girls with general bonus 5 point				Signature : .....		
<input type="text"/>			C. (0 – 44 points) = Not qualified										

Figure 4: Test chart used for individual assessment in the Papua Athletic Talent Identification System

Experience showed that a significant problem was the inaccuracy of the testers (teachers) themselves! In several cases the incorrect filling of the chart, control of the right age and errors in marking the exact performances caused irritation.

### Development and implementation of the strategy – Phase II

Many similar approaches to identify and select talents (even in advanced countries) have failed, and one of the reasons is that essential follow-up measures such as sound training programmes and competition opportunities, do not take place. Talent identification without systematic promotion will remain an empty hope. Key areas of interest in the case of Papua are 1) the provision of necessary equipment and 2) the education of teachers and coaches.

As the sport infrastructure in Papua is restricted to a few towns, the construction of facilities and equipment for all schools in rural communities will be a big challenge. Except for this brief mention, it is beyond the scope of this report.

### Step V – education of “Talent ID” coaches

Turning to the second area, it has to be said that the education of at least one qualified sport teacher in each school is essential if there is to be adequate physical education programmes throughout the province. From the point of view of athletics, good quality coaching is also a priority. There is a saying that goes: “The most qualified coach should handle the potential of a country”. Without a solid foundation, even a talented athlete will have difficulties to balance his/her technical deficits at later stages of the process.

According to official statistics, 665 Indonesian coaches have received the IAAF Coaches Education and Certification System Level I training (32 in Papua) and 29 have gone on to complete the CECS Level II course. Since 1977/78 an additional 26 have been given the privilege of a 12-month programme at the Johannes-Gutenberg-University in Mainz financed by scholarships from the German Government. In very sharp contrast to these proud figures, however, Indonesia has lost its reputation of strength in South East Asian

athletics and faces a substantial decline in participant numbers at both youth and junior levels!

Although there are surely various reasons to explain this situation, I believe there is one that cannot be overlooked. The education of the coaches who have gone through the two systems does not correspond with the local reality, especially with the typical conditions in rural Indonesia. With special regard to Papua province and the selected age group (12-14 years), I believe that the kids selected through the talent identification system must be handled by special coaches with an education that is different from what is supplied by the systems mentioned above. The profile of these coaches must closely correspond with the particular needs of athletes ranging from pre-puberty to adolescence. Moreover, their training curriculum has to be adjusted to the economic, social, topographic and infrastructure circumstances of the province.

The development and delivery of decentralised seminars to achieve this objective represents Step V of the strategy. In designing the seminar content the main emphasis must be given to the following principles:

- Avoid theoretical overload in favour of practical knowledge
- Include high input on administrative / organising skills
- Provide guidance towards self-reliance/ management
- Focus on improvement of personal teaching / coaching skills

### Step VI - the "Papua Cup"

If the motivation of talented youngsters cannot be stabilised through regular competition, they will soon lose interest. There is already a chronic lack of age-related competition in Indonesia in general and Papua province in particular, reducing the attraction of the sport and causing a significant migration of talent towards other sports. Even the rare cases when competitions are available, they tend to be dominated by athletes who have the benefit of early biological development. There is no philosophy along the lines

of "compete and have fun together" or a team aspect to provide attraction and motivation for late developers to stay in the sport.

Team competitions, with their high pedagogic and social values, are nearly unknown in Indonesian athletics and the few that may exist are clearly insufficiently developed. The creation and organization of the "Papua Cup" team competition as Step VI in the talent identification system is designed to address this lack. The aim of the event will be to foster:

- Multilateral education of young athletes
- Development of social values and team spirit
- Communication between different regions
- Chance for late developers

This event should become an annual highlight for the selected 12/13 years-old boys and girls from the 10 regions participating in the system. Two silver cups should be offered as awards. After winning three times in a row or five times with interruption, the cup will remain in the respective region.

The event will be built as team combined event 'Hexathlon'. Each team (male/female) consists of 8 athletes. The best 6 performances of a team in each event will be evaluated according to the "International Scoring Table" of the IAAF. Such a format will give each team member the chance to contribute to the overall result.

The competition schedule should be organised as shown in Table 3.

If the organising committee would like to extend this programme, the inclusion of a 4x100m Relay (at the end of the first day!) is recommended.

The organisation of the Papua Cup under the responsibility of the Education Department should be held on a rotational basis between the participating regions. Teams should nominate their captains and be guided by qualified coaches.

## Looking into the future (The next phase)

The identification and selection of talents can only be the starting point for a system that seeks to promote them continuously until they reach the peak of their careers. Any effort to identify and select talents can only be justified if a holistic promotion system guarantees their professional guidance. Therefore, the smooth transfer from one stage to another is of essential importance.

Indonesian sport in general doesn't have such a systematic framework. The various approaches and activities are fragmental and far from being closely integrated. But what seems impossible at national level could at least be realised in a single province like Papua.

After the completion of the talent identification system outlined above, I recommend the following 5-step programme:

### Step 1:

Under the responsibility of the provincial "Education Department" new 11-13 year-old students should be identified and selected at least every two years.

### Step 2:

The selected talents should undergo a 1-2 years decentralised "Basic Training Programme (BT I) in their respective / districts. Special coaches will be in charge of laying down the first general (=broad) foundation.

### Step 3:

After a multilateral introduction into athletics, the 14-15 year-olds have to qualify for inclusion in the provincial PPLP based on an assessment of their real potential and prospects.

### Step 4:

The PPLP will improve the performances of the qualified athletes through an extended "Basic Training Programme" (BT II), for the first time taking their individual potential for certain events into consideration (change to a more 'block-oriented' content).

### Step 5:

The final stage of the provincial system should offer three different paths towards further improvement and respective specialisation ("Build-up Training")

- a Continuation at the respective PPLP until then maximum age of 19 years,
- b Transfer of the training process to PPLM due to studies at University level
- c Training under specialised coaches (provincial PASI-coaches)

Note: Steps 4 and 5 should only be handled by CECS Level II qualified Coaches. Physical Education teachers should not be given the task without an adequate license.

## Conclusion

Within the framework of an agreement between the German National Olympic Committee and the Ministry for National Education of Indonesia ("Development of Physical Education with special regard to the core-sport of athletics"), I had the chance to establish an athletics talent identification system for the school administration in pre-dominantly rural provinces.

Indonesia's most easterly province of Papua was chosen to become the role model for the other 30 provinces to follow.

Table 3: Recommended competition programme for the "Papua Cup"

<b>First Day</b>			
Boys	100m	Ball throw (200gr)	Long Jump
Girls	80m hurdles (76cm)	High Jump	Ball throw (80gr)
<b>Second Day</b>			
Boys	80m hurdles (84cm)	High Jump	1000m
Girls	100m	Long Jump	800m

The model does not claim to be a high-level or scientific approach that will meet the criteria of western industrialised countries. The real intention has been just the opposite. We tried to create a simple but effective concept to identify the motor potential for our sport in a typical developing country.

I am strongly convinced that the greatest potential of athletics lies in the rural areas of most countries, which in some cases have not even touched their tremendous human resources for sport in general or athletics in particular.

Despite the establishment and operation of the IAAF Coaches Education and Certification System over the last two decades, many countries are still struggling to develop the organisational infrastructure needed to provide the basis for coaches to implement what they have learned.

From my point of view, we can no longer pay lip service to concepts such as “the necessity of grass root programmes”, “the urgency of developing school athletics” or “the need for a long-term plan”. We simply have to go ahead and show the most challenged countries concrete, practical measures and projects through which they can identify talent, realise their potential and launch basic programmes.

### Acknowledgements

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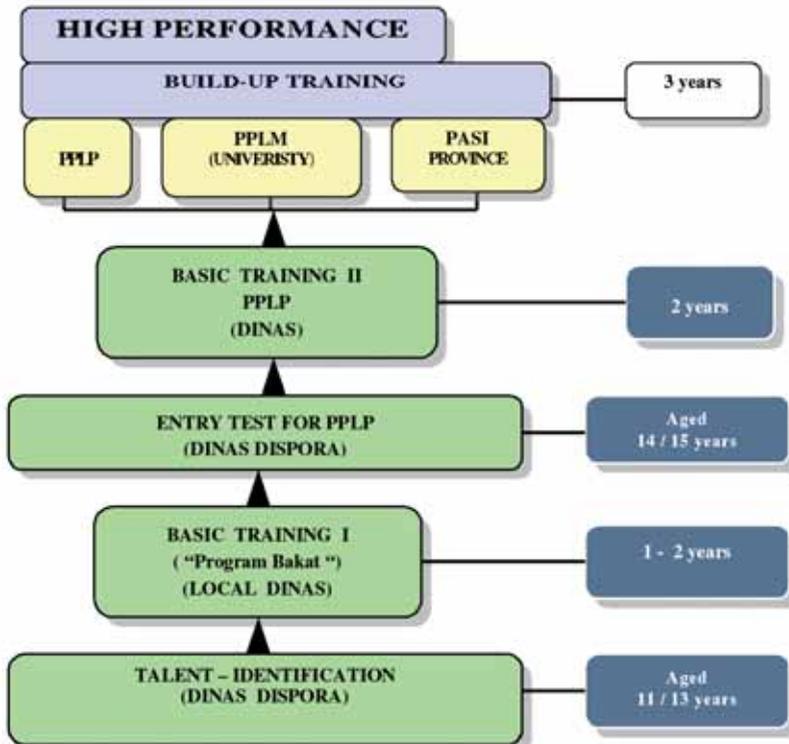


Figure 5: Overview of proposed Papua Talent Identification and Promotion System.