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Vietnam

Coffee

Vietnam's Coffee Standards

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Report Highlights: Vietnam's coffee sector is in the midst of trying to apply new grading standards. Although the new system was developed for use in the 2002/2003 coffee crop, few Vietnamese exporters or foreign importers seem interested in using the new standards. Vietnam's 2001 and 2002 production by province data area also provided.

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The Problem with Standards

Improving the quality of the coffee exported from Vietnam is one of the key objectives of Vietnam's Coffee Sector Development Strategy. More than 90 percent of the coffee produced in Vietnam is exported. However, many traders and importers feel the quality of Vietnam's robusta coffee is relatively poor. While the quality of Vietnam's arabica coffee is higher, arabica exports only total about 3-4 percent of total exports. Vietnam's (arabica and robusta) coffee exporters are encouraged to use several new coffee standards that conform (mostly) to international standards.

ICO Coffee Standards

In February 2002, the International Coffee Organization (ICO) introduced a new global Coffee Quality-Improvement Program (CQP) to take effect on October 1, 2002. This action was defined in Resolution No.407, which was the outcome of the 85th International Coffee Council (ICC) meeting. Resolution 407 set minimum standards and maximum moisture levels for coffee exported by ICO members. Vietnam is an ICO member.

Resolution 407 established grading limits on the number of defects -- no more than 150 defects per 300 grams for Robusta coffee, and no more than 86 defects per 300 g for Arabica coffee. It also set moisture standards -- not lower than 8 percent or higher than 12.5 percent. The Resolution said all members should seek to identify and put into practice cost-effective alternative uses for substandard coffee.

Resolution 407 asked importing members to support the objectives of the quality program. All ICO members were requested to notify ICO if they found substandard coffee in commercial trade. The United States, the world's leading coffee importer and processor, is not an ICO member. Almost all other importers are ICO members.

In September 2003, the ICO is to make an assessment of the CQP, its progress, costs and impact on quality and prices.

Vietnam's Coffee Standards

On November 5, 2001, Vietnam's Minister of Science, Technology and Environment (now Ministry of Science and Environment) issued Decision No. 57/2001/QDD-KHCNMT to introduce five new coffee standards.

1) TCVN 4193:2001	This standard is attached below. This is the third revision of TCVN 4193 - 1993
2) TCVN 4334:2001	Coffee and Coffee Products – Vocabulary This standard is based on ISO 3509-1989 This is the first revision of TCVN 4334-1986

3) TCVN 4807:2001	Green Coffee - Size Analysis - Manual sieving This standard is based on ISO 4150-1991 This is the second revision of TCVN 4807-1989
4) TCVN 6928:2001	Green Coffee - Determination of Loss in Mass at 150o C This standard is based on ISO 6673-1983
5) TCVN 6929:2001	Green Coffee Guidance on Specification Methods This standard is based on ISO 9116-1992

These standards were developed by Technical Committee TCVN/TC/F16 of a government quality improvement program for Coffee and Coffee products led by the Vietnam Coffee and Cocoa Association (Vicofa).

The first of the five new standards, TCVN 4193:2001 (appendix 1) introduced major changes in Vietnam's coffee grading system by applying the international defect counting system. The defect system replaced the traditional method, which was based on an analysis of a sample for set parameters (such as moisture percentage, percentage of black and broken beans, and foreign matter percentage). According to the new Vietnamese standard, coffee is classified into 6 grades, from Special to Grade 5. The details describing the number and types of faults are provided in Appendix 1.

One key difference from ICO standards, is that the Vietnamese standard sets the maximum moisture level at 13 percent, instead of the ICO's 12.5 percent level (as noted in Resolution 407 of February 1, 2002).

In addition to the new standards, there are some coffee quality improvement projects underway in Vietnam. One such project (working with GTZ and several international coffee roasting companies) on "improvement of arabica coffee quality" is in Quang Tri province (see our previous report VM3008). Vicofa is also implementing an FAO/ICO project (TCP/VIE/2903) on coffee quality improvement, addressing mold formation (such as ochratoxin A - OTA) and prevention of coffee contamination.

Preliminary Results

Although Vicofa has been working hard to promote the new grading standards, they have had little success. Vicofa's efforts to promote the new standards are confronting several large problems. First, most Vietnamese coffee exporters are not familiar with the defect counting system. Second, only a few well-equipped coffee processors are capable to grade coffee in accordance with the new standard. And third, many foreign importers are not eager to use the new system, since they are accustomed to the old looser standards.

One coffee processor noted that his company could produce coffee grade 2 (90 faults detected) as per TCVN 4193:2001, but that coffee would require a higher price, about \$25-30/MT higher, than that of Vietnam's traditional grade 2 (5% black and broken beans).

However, most of the foreign buyers are not ready to accept higher prices for higher quality

coffee graded under the new standard. Buyers said they have dealt with the traditional standard for quite a long time and still find it convenient.

With a lack of enforcement measures to force exporters and importers to use the new standard, traders are using both systems, based on the importers' requirements. In other words, the Vietnamese exporter will use the ICO-compatible standards (but charge a higher price), or use the older Vietnamese standards (lower price) -- whichever the buyer prefers.

One foreign trader said that during the peak harvest time, when raw coffee quality was quite consistent and uniformed, they did buy a few shipments of Vietnamese coffee graded under the TCVN 4193:2001 defect counting system and there were not any problems (in the coffee quality or in using the new grading standard). However, after the peak harvest season, his company had stopped using the TCVN 4193:2001 standard because it would be difficult to grade coffee in accordance with the new standard if the coffee was taken from different holding stocks with large variations in quality. Knowing that the non-peak coffee would not meet the new standard, both exporter and importer were content using the older standard.

Communication with ICO

In a letter dated August 16, 2002, Vicofa informed the International Coffee Organization (ICO) that Vietnam would implement the new standards (TCVN 4193:2001) for the 2002/03 coffee crop starting in October 2002. In a follow-up letter dated May 16, 2003, Vicofa noted some of the measures (conferences, code of conduct, etc.) that Vietnam has taken to explain and promote use of the new standards.

However, the letters also noted it was too early for Vietnam to apply all aspects of Resolution No.407 as Vietnam needed more time to tackle various issues, such as:

- (1) what to do with substandard coffee that could not be exported,
- (2) how to set-up a legal policy system (on coffee quality disputes),
- (3) and where to find financial resources to promote the new standards.

In the past, Vietnam has tried to work programs to address the global oversupply of coffee, but Vietnam does not have the financial resources to fund large operations.

Vietnam participated in the Association of Coffee Producing Countries's (ACPC) coffee retention program in 2001. The Government of Vietnam spent hundreds of billion of Vietnam Dong to cover the storage costs for retaining 150,000 mt of coffee for 6 months in 2001. After that 6-month period, the GOV was forced to release the coffee. Likewise, Vietnam could not take part in ICO's program to destroy 5% of the 2001-crop low-quality coffee. Vietnam would have needed more than USD 13 million if the country had destroyed 5% (45,000 mt) of its coffee.

Appendix 1 Vietnam Standards (TCVN 4193:2001)-Third revision

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This standard is issued in accordance with Decision No.57/2001/QD-BKHCNMT dated November 05, 2001 by Minister of Science, Technology and Environment

Green coffee - Specification

1. Scope

This standard specifies technical requirements for green coffee; it applies to both Arabica and Robusta coffee species.

2. Normative references

TCVN 4334: 2001 (ISO 3509:1984) Coffee and it products-Vocabulary

TCVN 4807: 2001 (ISO 4150:1991) Green coffee-Size analysis-Manual sieving

TCVN 5702 - 1993 Green coffee sampling

TCVN 6536: 1999 (ISO 1447:1978) Green coffee - Determination of moisture content (routine

method)

TCVN 6601: 2000 (ISO 6667:1985) Green coffee- Determination of proportion of insect-

damaged beans.

TCVN 6602: 2000 (ISO 8455:1986) Green coffee in bags-Guide to storage and transport

3. Definitions

For the purpose of this Standard, the definitions given in TCVN 4334:2001 (ISO 3509:1989) apply

4. Technical requirements

4.1 Quality classification

Green coffee is classified in 6 grades

- Special grade
- Grade 1
- Grade 2

- Grade 3
- Grade 4
- Grade 5
- **4.2 Colors:** the natural colors of the green bean of each coffee species
- **4.3 Flavors**: the natural flavors of the green bean of each coffee species, with no strange flavors.
- **4.4 Moisture:** the maximum moisture content for forwarding from Vietnam is stipulated at 13% in accordance with the TCVNN 5636:1999 (ISO 1447)
- **4.5 Percentage of mixture** (table 1)

Table 1 - Percentage of mixture permitted for each grade

Coffee species	Special Grade and Grade 1	Grade 2	Grade 3, Grade 4 and Grade 5
Arabica	- No mixture	- Mixed R: #_1%	- Mixed R: #_5%
	with R and C	- Mixed C: #_0.5%	- Mixed C: #_1%
Robusta	-Mixed C: #_0.5%	-Mixed C: # 1%	-Mixed C: #_5%
	-Mixed A: #_3%	-Mixed A: #_5%	-Mixed A: #_5%

Note: A: Arabica R: Robusta C: Cherry

4.6 Defects and value of faults for each defect (table 2)

Table 2 - Value of faults for each defect

Defect category	Value of faults
1 black bean	1.0
1 dark brown bean	0.2
1 dried coffee cherry	1.0
1 bean in parchment	0.5
1 sour bean*	1.0
1 moldy bean*	1.0
1 half black bean	0.5

1 immature bean 0.2 1 withered bean 0.5 1 spongy bean 0.2 1 shell 0.2 1 bean with 1 hole made by insects 0.1 1 bean with 2 hole made by insects 0.2 1 spotted bean 0.1 1 broken bean (with ½ or 3/4 bean remaining) 0.1 1 bean fragment (with less than ½ bean remaining) 0.2 1 large husk fragment (>3/4 husk) 1.0 1 medium husk fragment (from ½ to 3/4 husk) 0.5 1 small husk fragment (<½ husk) 0.2 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (<½ parchment) 0.2 1 small parchment (<½ parchment) 0.1 1 large stick (2-4 cm long) 3.0 1 medium stick (1-2 cm long) 1.0 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12) 1.0		1
1 spongy bean 1 shell 0.2 1 bean with 1 hole made by insects 0.1 1 bean with 2 hole made by insects 0.2 1 spotted bean 0.1 1 broken bean (with ½ or 3/4 bean remaining) 0.1 1 bean fragment (with less than ½ bean remaining) 1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 small parchment (<½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 immature bean	0.2
1 shell 1 bean with 1 hole made by insects 1 bean with 2 hole made by insects 1 spotted bean 1 broken bean (with ½ or 3/4 bean remaining) 1 bean fragment (with less than ½ bean remaining) 1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 withered bean	0.5
1 bean with 1 hole made by insects 1 bean with 2 hole made by insects 1 spotted bean 0.1 1 broken bean (with ½ or 3/4 bean remaining) 1 bean fragment (with less than ½ bean remaining) 1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 spongy bean	0.2
1 bean with 2 hole made by insects 1 spotted bean 0.1 1 broken bean (with ½ or 3/4 bean remaining) 1 bean fragment (with less than ½ bean remaining) 1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (from ½ to 3/4 husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 small parchment (<½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3 medium stone or clod (under sieve No.20 and on sieve No.12)	1 shell	0.2
1 spotted bean 0.1 1 broken bean (with ½ or 3/4 bean remaining) 0.1 1 bean fragment (with less than ½ bean remaining) 0.2 1 large husk fragment (>3/4 husk) 1.0 1 medium husk fragment (from ½ to 3/4 husk) 0.5 1 small husk fragment (<½ husk) 0.2 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 0.2 1 small parchment (<½ parchment) 0.1 1 large stick (2-4 cm long) 3.0 1 medium stick (1-2 cm long) 1.0 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 bean with 1 hole made by insects	0.1
1 broken bean (with ½ or 3/4 bean remaining) 1 bean fragment (with less than ½ bean remaining) 1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 bean with 2 hole made by insects	0.2
1 bean fragment (with less than ½ bean remaining) 1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 spotted bean	0.1
1 large husk fragment (>3/4 husk) 1 medium husk fragment (from ½ to 3/4 husk) 0.5 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 small parchment (<½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 2.0 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3 medium stone or clod (under sieve No.20 and on sieve No.12)	1 broken bean (with ½ or 3/4 bean remaining)	0.1
1 medium husk fragment (from ½ to 3/4 husk) 1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 small parchment (<½ parchment) 1 large stick (2-4 cm long) 3.0 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 bean fragment (with less than ½ bean remaining)	0.2
1 small husk fragment (<½ husk) 1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (>½ parchment) 1 small parchment (<½ parchment) 1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 2.0 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3 medium stone or clod (under sieve No.20 and on sieve No.12)	1 large husk fragment (>3/4 husk)	1.0
1 bean with maximum 30% of silverskin (for wet processed coffee) 1 large parchment (> ½ parchment) 1 small parchment (< ½ parchment) 1 large stick (2-4 cm long) 3.0 1 medium stick (1-2 cm long) 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 medium husk fragment (from ½ to 3/4 husk)	0.5
processed coffee) 1 large parchment (> ½ parchment) 1 small parchment (< ½ parchment) 1 large stick (2-4 cm long) 3.0 1 medium stick (1-2 cm long) 2.0 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 small husk fragment (<½ husk)	0.2
1 small parchment (< ½ parchment) 1 large stick (2-4 cm long) 3.0 1 medium stick (1-2 cm long) 2.0 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	•	0.05
1 large stick (2-4 cm long) 1 medium stick (1-2 cm long) 2.0 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 large parchment (> ½ parchment)	0.2
1 medium stick (1-2 cm long) 2.0 1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 small parchment (< ½ parchment)	0.1
1 small stick (shorter than 1 cm long) 1 large stone or clod (on sieve No.20) 3.0 1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 large stick (2-4 cm long)	3.0
1 large stone or clod (on sieve No.20) 1 medium stone or clod (under sieve No.20 and on sieve No.12) 2.0	1 medium stick (1-2 cm long)	2.0
1 medium stone or clod (under sieve No.20 and on sieve No.12)	1 small stick (shorter than 1 cm long)	1.0
sieve No.12)	1 large stone or clod (on sieve No.20)	3.0
1 small stone or clod (under sieve No.12) 1.0	`	2.0
	1 small stone or clod (under sieve No.12)	1.0
Other foreign matters (beside these listed above)	Other foreign matters (beside these listed above)	
Under 0.5 gram 1.0	Under 0.5 gram	1.0
From 0.5 to 1 gram 2.0	From 0.5 to 1 gram	2.0
Every 1 gram from over 1 gram 3.0	Every 1 gram from over 1 gram	3.0

^{*} maximum value of faults for each 300 gram sample: 5 faults

5. Number of permitted faults and weight ratio on sieves

The total of permitted faults in 300 grams sample and the minimum weight ratio on sieve with round holes specified in table 3.

Table 3

Quality Grading	The total of permitted faults in 300 grams sample		The minimum weight ratio on sieve with round holes		
	Arabica	Robusta	Sie	The ratio (%)	
			Arabica Robusta		
Special grade	15	30	No.18/No.16	No.18/No.16	90/10
Grade 1	30	60	No.16/No.14	No.16/No.12 ½	90/10
Grade 2	60	90	No.12 ½/No.12	No.12 ½/No.12	90/10
Grade 3	120	150	No.12/No.10	No.12/No.10	90/10
Grade 4	150	250	-	-	unspe.
Grade 5	unspecified	unspecified	-	-	unspe

^{*} The diameter of the sieves with round holes as follows:

Sieves No.	Aperture (mm)
No. 10	4.00
No.12	4.75
No.12 ½	5.00
No.14	5.60
No.15	6.00
No.16	6.30
No.17	6.70
No.18	7.10
No.19	7.50
No.20	8.00

Note: Sieve No 12 ½ equivalent sieve No 13 according to ISO 4150:1980

6. Testing method

- 6.1 Sampling: in accordance with TCVN 5702- 1993
- 6.2 Determination of proportion of insect damaged beans: in accordance with TCVN 6601:2000 (ISO 667:1985)
- 6.3 Determination of bean size: in accordance with TCVN 4807:2001 (ISO 4150:1991)

7. Packaging, marking, storage and shipping

In accordance with TCVN 6602:2000 (ISO 8455:1986)

Appendix 2 Vietnam's 2001 and 2002 Coffee Area-Yield-Production by Provinces

		2001				2002		
Provinces	Total area	Harv. area	Yield	Production	Total area	Harv. area	Yield	Production
	(tha)	(tha)	(mt/ha)	(tmt)	(tha)	(tha)	(mt/ha)	(tmt)
TOTAL VIETNAM	565.40	473.60	1.77	840.08	531.30	474.00	1.45	688.95
North Vietnam	16.00	6.70	1.08	7.21	15.60	9.20	0.91	8.40
Red River Delta	0.10	0.10	2.00	0.20	0.10	0.10	2.00	0.20
На Тау	0.10	0.10	2.00	0.20	0.10	0.10	2.00	0.20
North East	1.60	1.00	1.10	1.10	1.60	1.00	0.20	0.20
Ha Giang	0.60	0.30	0.33	0.10	0.60	0.30	0.33	0.10
Lang Son	0.10			0.00	0.10			0.00
Yen Bai	0.90	0.70	1.43	1.00	0.90	0.70	0.14	0.10
North West	4.40	1.70	0.59	1.00	3.40	2.60	0.61	1.59
Lai Chau	0.40	0.20	0.50	0.10	0.40	0.20	1.00	0.20
Son La	4.00	1.50	0.60	0.90	3.00	2.40	0.58	1.39
North Coastal Central	9.90	3.90	1.26	4.91	10.50	5.50	1.17	6.41
Thanh Hoa	3.40	0.10	1.00	0.10	3.50	1.30	0.54	0.70
Nghe An	2.80	1.50	0.80	1.20	3.00	1.50	0.80	1.20
Quang Binh	0.20			0.00	0.20			0.00
Quang Tri	3.30	2.30	1.57	3.61	3.50	2.70	1.67	4.51
Thua Thien Hue	0.20			0.00	0.30			0.00
South Vietnam	549.40	466.90	1.78	832.87	515.70	464.80	1.46	680.55
South Coastal Central	3.70	2.40	0.67	1.60	3.30	2.10	0.71	1.50
Quang Ngai	0.60	0.10	1.00	0.10	0.30			0.00
Binh Dinh	0.60	0.40	0.75	0.30	0.50	0.50	0.60	0.30
Phu Yen	1.80	1.20	0.75	0.90	1.80	1.10	1.00	1.10
Khanh Hoa	0.70	0.70	0.43	0.30	0.70	0.50	0.20	0.10
Tay Nguyen Highland	477.60	414.60	1.84	761.20	451.10	414.90	1.48	612.05
Kon Tum	14.20	8.20	1.67	13.69	13.00	9.50	1.56	14.82
Gia Lai	81.00	60.00	1.79	107.40	79.20	69.20	1.38	95.50
Dac Lac	258.50	242.20	1.89	457.76	239.40	228.60	1.63	372.62
Lam Dong	123.90	104.20	1.75	182.35	119.50	107.60	1.20	129.12
South East	68.10	49.90	1.40	70.07	61.30	47.80	1.40	67.00
Binh Phuoc	18.80	13.30	1.32	17.56	17.00	15.30	1.35	20.66
BInh Duong	0.60	0.30	2.67	0.80	0.60	0.30	2.67	0.80
Dong Nai	33.20	26.00	1.33	34.58	27.90	20.50	1.31	26.86
Binh Thuan	1.80	1.40	1.43	2.00	2.10	1.40	1.43	2.00
Ba Ria-Vung Tau	13.70	8.90	1.70	15.13	13.70	10.30	1.62	16.69